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SOUTH CAROLINA FORESTRY COMMISSION



ANNUAL REPORT 1993-1994

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State Budget And Control Board

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STATE DOCUMENTS



SOUTH CAROLINA FORESTRY COMMISSION
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J. Hugh Ryan, State Forester

S.C. Forestry Commission

Annual Report

1993-94

The Honorable Carroll A. Campbell, Governor, and the General Assembly of South Carolina:

Pursuant to Section 48-23-90 of the Code of Laws of South Carolina 1976, as amended, which provides that the Commission shall "inquire into and make an annual report to the General Assembly upon the forest conditions in the state, with reference to the preservation of forests, the effect of destruction of forests upon the general welfare of the State, and other matters pertaining to the subject of forestry and tree growth, including recommendations to the public generally as to reforestation", I have the honor to submit the report of the Commission for the period of July 1, 1993 to June 30, 1994.

Respectfully submitted,

**State Commission of Forestry
Boris Hurlbutt, Chairman**

Table of Contents

Letter of Transmission	1
Table of Contents.....	2
Members of the Commission	3
Mission Statement	4
Field Operations Support Division	5
Nurseries & Tree Improvement	6
Forest Fire Protection	15
Insect & Disease	32
Forest Management	34
State Forests	
Manchester State Forest	43
Sandhills State Forest	45
Harbison State Forest	47
Equipment	48
Communications	50
Environmental Management	51
Environmental Education	52
Administration Division.....	53
Accounting	54
Construction and Real Property	55
Human Resource Management	57
Information Systems	58
Purchasing	59
Training and Safety	61
Information Services	63
Economic and Rural Development	67
Organizational Chart	68

STATE COMMISSION OF FORESTRY

Members of the Commission:

Boris Hurlbutt, Chairman, Walterboro
Lawrence J. Bloomer, Vice Chairman, Easley
Joel R. Thrift, Westminster
Joe P. Simpson, Lancaster
George E. Callaway, Manning
G. Edward Muckenfuss, Summerville
Charles E. Williams, Georgetown
Sara Lee Simons, Florence
Dr. Max Lennon, President, Clemson University, Clemson

Administration

J. Hugh Ryan, State Forester and Secretary to the Commission
H. Gilbert Brown, Deputy State Forester
Dean Carson, Technical Assistant to the State Forester
Judy J. Weston, Legislative Activities Coordinator
Wray E. Freeman, Division Director, Field Operations Support
Joe M. Richbourg, Division Director, Administration
Marvin W. Spearman, Division Director, Field Operations

STATE COMMISSION OF FORESTRY MISSION

The mission of the South Carolina Forestry Commission is to protect, promote, enhance, and nurture the forest lands of South Carolina in a total quality manner consistent with achieving the greatest good for its citizens. Responsibilities extend to all forest lands, both rural and urban, and to all associated forest values and amenities including, but not limited to timber, wildlife, water quality, air quality, soil protection, recreation, and aesthetics.

The Forestry Commission shall have general and specific responsibilities for the promulgation and enforcement of laws and regulations related to protection of the forest and its associated values. The Commission shall be responsible for promoting and developing the appropriate technologies to accomplish its objectives, and for the development and promulgation of Best Management Practices guidelines for South Carolina's forest land.

Administration

- I. Hugh Ryan, State Forester and Secretary to the Commission
- II. Gilbert Brown, Deputy State Forester
- Dean Carson, Technical Assistant to the State Forester
- Judy A. Weston, Legislative Activities Coordinator
- Wayne E. Freeman, Division Director, Field Operations Support
- Joe M. Richbourg, Division Director, Administration
- Martin W. Spearman, Division Director, Field Operations

FIELD OPERATIONS SUPPORT DIVISION

The Field Operations Support Division provides operational and technical staff direction to the Forestry Commission field organization in each of the major program areas of forest management, nurseries and tree improvement, forest insects and diseases, and forest fire protection.

Nurseries and Tree Improvement

The SC Forestry Commission operated one forest tree nursery and one greenhouse for the production of seedlings for South Carolina landowners.

This year 25,729,760 seedlings were grown and 23,286,422 were shipped. South Carolina's forest industries planted an additional 37,944,087 seedlings on company lands. A grand total of 119,310,888 seedlings were planted on 176,756 acres in the state during the year.

The Piedmont, Coastal, and Tilghman nursery facilities are now completely phased out of seedling production. The Coastal and Piedmont facilities are now supporting White Pine, Virginia Pine, and a hardwood genetics program. All three of these facilities will continue to be used for seedling distribution.

Containerized Seedlings

Specialized needs exist for seedlings other than bareroot stock grown at the Forestry Commission Taylor Nursery in Trenton. To meet these needs, a triple bay greenhouse is maintained at Creech Seed Orchard in Wedgefield. Containerized seedlings, rooted cuttings and progeny test materials are grown at the greenhouse. The greenhouse and associated slathouses give the Commission the capacity to grow a million plus containerized seedlings annually.

Research

The SC Forestry Commission continues cooperative research projects with Clemson University, Auburn University, and the U. S. Forest Service. The Commission also maintains membership in the North Carolina State University Pine Tree Improvement Cooperative, the North Carolina State Hardwood Research Cooperative, and the Auburn University Southern Forest Nursery Management Cooperative.

Forest Tree Seed Collection Program

Each year the SC Forestry Commission collects or purchases pine cones and other forest tree seed for seedling production. During the past year, Walnut, Baldcypress, Red Cedar, Yellow Poplar, and Longleaf Pine seed were purchased for future seedling production.

State Nurseries Seedling Production by Species

Bareroot Seedlings

Improved Coastal Loblolly Pine	7,300,000
Improved Piedmont Loblolly Pine	9,650,000
Longleaf Pine	5,800,000
Improved Slash Pine	58,000
Improved Virginia Pine	200,000
Improved White Pine (2-0)	375,000
Baldcypress	76,000
Red Cedar	62,000
Yellow Poplar	59,000
Improved Sycamore	46,500
Sweetgum	38,000
Black Walnut	30,500
Crepe Myrtle	800
Dogwood	5,800
Redbud	2,800
Bicolor Lespedeza	1,000,000
Sawtooth Oak	55,000
Variety Pack	20,000

Total	24,779,400
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White Pine (1-0) Not For Sale	300,000
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Containerized Seedlings (Creech Seed Orchard)

Improved Piedmont Loblolly Pine	15,000
Improved Coastal Loblolly Pine	15,000
Improved Slash Pine	5,000
Improved Virginia Pine	12,000
Improved Longleaf Pine	532,000
Sawtooth Oak	10,000
Leyland Cypress	43,000
Carolina Sapphire	12,360
Clemson Greenspire	6,000

Total	650,360
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Grand Total	25,729,760
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Tree Seedling Distribution by Landowner Classification

A. Seedlings Planted in the State by Land Ownership:

Land Ownership	Percent of Total	Number Trees Planted
1. Private Ownership	58	70,042,926
2. Christmas Tree Growers	1	674,089
3. Forest Industry (Pulp & Paper)	32	37,944,087
4. Lumber	3	3,281,262
5. Forest Industry (Other Corp.)	1	2,751,283
6. Schools	3	3,289,608
7. State Forest		638,700
8. Other State Land	1	196,862
9. Other Government Land	1	63,621
10. Federal Land		372,100
11. Associations/Clubs		56,350
Total	100	119,310,888

B. Source of Seedlings Planted in the State:

1. Nurseries in South Carolina

SC Forestry Commission (Includes Greenhouse)	23,286,422
Champion International	11,024,932
International Paper Company	30,389,000
Westvaco	18,645,602
Weyerhaeuser	26,500,000

Total	109,845,956
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2. Nurseries Outside of South Carolina

Georgia Forestry Commission	59,570
Federal Paper Board	2,296,000
Union Camp	1,546,000
International Forest Tree Seed Company	4,586,000
North Carolina Forest Service	22,100
Georgia Pacific	955,262

Total	9,464,932
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**Total Seedlings and Acres Planted in South Carolina
1929-1994 By County**

County	Seedlings Planted 1993-1994	Grand Total Planted To Date 1929-94	Acres Planted 1929 - 6/30/94
ABBEVILLE	1494736	8183192	75578
AIKEN	2831323	224445910	277298
ALLENDALE	3723530	93077826	118756
ANDERSON	347736	49946127	58485
BAMBERG	988612	60031871	77724
BARNWELL	2475291	22078812	156527
BEAUFORT	527402	268445796	35449
BERKELEY	3258460	120132292	150461
CALHOUN	685219	47649418	62544
CHARLESTON	1319502	45151228	59349
CHEROKEE	685253	33100918	40076
CHESTER	856962	79404718	121566
CHESTERFIELD	2132506	142581769	169801
CLARENDON	2490255	64991292	80339
COLLETON	3237699	128581726	175253
DARLINGTON	592416	36615612	46115
DILLON	302600	28736030	33399
DORCHESTER	2672429	82329760	99721
EDGEFIELD	3484178	71730659	96356
FAIRFIELD	1844674	107001560	132448
FLORENCE	917445	34245930	42320
GEORGETOWN	4640860	137724076	171338
GREENVILLE	579926	29480952	34410
GREENWOOD	2397574	83949815	93855
HAMPTON	3175906	104601446	132725
HORRY	2143838	77540640	90302
JASPER	1258536	94431951	110176
KERSHAW	2368535	184546344	216782
LANCASTER	624774	74908002	94284
LAURENS	1381336	97067193	183205
LEE	639408	35420656	44931
LEXINGTON	487992	62563140	77597
MARION	1897040	36420930	45480
MARLBORO	449962	54331759	67283
MCCORMICK	1324108	48898728	64934
NEWBERRY	2610016	87874260	115435
OCONEE	305710	34785863	41147
ORANGEBURG	2825516	136989401	203199
PICKENS	296664	28479247	33540
RICHLAND	370362	29177889	80622
SALUDA	1655253	48876099	68440
SPARTANBURG	1475920	59052429	69284
SUMTER	1125308	67033464	78277
UNION	2155660	73286059	93194
WILLIAMSBURG	5185818	102972904	139657
YORK	380502	58397046	69706
MULTIPLE COUNTIES	40611636	101662493	170120
TOTAL	119,236,388	3,698,935,232	4,699,488

Seedling Distribution 1927 - 1994

Year	Total State Nurseries	Total All Sources	Year	Total State Nurseries	Total All Sources
1928-29	142000	142000	1961-62	71892420	83844470
1929-30	148000	148000	1962-63	56191241	64201541
1930-31	986000	986000	1963-64	51445597	62423597
1931-32	976000	976000	1964-65	49009893	60683493
1932-33	996000	996000	1965-66	42310685	56529185
1933-34	1031000	1031000	1966-67	48575190	69597590
1934-35	7529000	7529000	1967-68	39970136	58812136
1935-36	23000000	23000000	1968-69	29529285	51453285
1936-37	22000000	22000000	1969-70	31415430	49202630
1937-38	11192000	11192000	1970-71	31939880	54540880
1938-39	10854000	10854000	1971-72	23677925	41357225
1939-40	12244000	12244000	1972-73	30977800	45239100
1940-41	21165423	21165423	1973-74	28443000	42305500
1941-42	10275037	10275037	1974-75	40081500	55996500
1942-43	4742010	4742010	1975-76	40664387	59063387
1943-44	5662608	5662608	1976-77	39795375	59238275
1944-45	1962600	1962600	1977-78	45734500	64380200
1945-46	6402255	6402255	1978-79	43009533	65936933
1946-47	1962600	1962600	1979-80	46374919	76206619
1947-48	11356990	11356990	1980-81	53512622	86419513
1948-49	30338775	30338775	1981-82	55727828	87793028
1949-50	29501955	29501955	1982-83	47798858	86265299
1950-51	20615315	20615315	1983-84	50169612	100394312
1951-52	16619000	19619000	1984-85	51635770	107717581
1952-53	22035850	32246298	1985-86	65464810	124381360
1953-54	36210100	42852314	1986-87	73554964	157522970
1954-55	35373025	45182255	1987-88	78787967	164094827
1955-56	34413550	42931755	1988-89	55051595	153450416
1956-57	55753600	69658736	1989-90	38355557	128475489
1957-58	60846200	93369084	1990-91	29297000	102384439
1958-59	123985000	166351000	1991-92	31983779	94710582
1959-60	147146365	187516418	1992-93	22665397	84287351
1960-61	145609075	158330575	1993-94	23286422	119310888

Total State Nurseries:

2,381,406,210

Total All Sources:

3,811,361,604

Seed Orchards

Since 1963, the SC Forestry Commission has been a participating member in the NC State University Industry Cooperative Tree Improvement Program. Understanding that trees could be genetically improved, substantial gains have been and will continue to be possible. Success over time has and will continue to result in firm commitments to tree improvement programs. As tree improvement programs continue, new and greater challenges in accomplishing breeding and operational goals will become evident. Second generation Loblolly Pine seedlings will be available in 1994-1995 for general and custom sales.

Creech Seed Orchard

Acres

Coastal Loblolly (Disease Resistant)	5
Piedmont Loblolly (1st Generation)	40
Piedmont Loblolly (Disease Resistant)	5
SC Slash (1st Generation)	17
Longleaf (1st Generation)	12
Virginia Pine (1st Generation)	3
Coastal Loblolly (2nd Generation)	10.2
Piedmont Loblolly (2nd Generation)	13.4

Total	105.6
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Niederhof Seed Orchard

Coastal Loblolly (2nd Generation)	204
Piedmont Loblolly (2nd Generation)	118
Longleaf Pine (1st Generation)	30
SC Slash (1st Generation)	3
Sawtooth Oak (Seed Production)	2

Total	357
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Coastal Seed Orchard

Sycamore	4
Sweetgum	6
Willow Oak (Seed Production)	1.3
Swamp Chestnut Oak	1.2
Green Ash	3.3
Red Maple	1.3
Southern Red Oak	2.2
White Oak	1.9
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Total	21.2

Piedmont Seed Orchard

White Pine (1.5 Generation)	12
Northern Red Oak	2
Virginia Pine (1st Generation)	3
<hr/>	
Total	17

GRAND TOTAL ORCHARD ACRES 500.80

The South Carolina Forestry Commission certifies through the Seed Certification Department at Clemson University 38 select acres of Coastal Loblolly Pine and 80 select acres of Piedmont Loblolly Pine. The certification guarantees the pedigree of the plant material.

Niederhof Seed Orchard

Opening Niederhof Seed Orchard to controlled hunting continues the Forestry Commission's concept of multiple use management of state owned lands. Hunting rules, regulations and guidelines have been adopted and are being administered by the Forestry Commission.

The following schedule relates to allowed hunting at Niederhof.

<u>Species</u>	<u>Season</u>	<u>Hunt Days</u>	<u>Hours</u>	<u>Restrictions</u>	<u>Fees</u>
Deer	1-Oct. 31-Dec.	Saturday	Dawn Sunset	Still Hunt	\$20.00
Quail	1-Jan. 26-Feb.	Tues./Thur.	Dawn Sunset	Max 3 Hunters Per Party	\$10.00
Turkey	16-Mar. 27-Apr.	Tues./Thur.	Dawn Sunset	Stalking	\$10.00

Summary of Hunting Activities

	Number of Participants	Number of Use Days	Number Harvest	Revenue
Deer	96	8	50	\$1,920
Quail	21	9	25	\$210
Turkey	27	13	8	\$270
Totals	144	30	83	\$2,400

(Includes Gratis Permits Issued)

Jasper County receives 25% (\$73,973.92) of revenue generated from set aside land with allotment payments, timber, straw, seed and cone sales, and wildlife activities. Revenue generated through these sources at Niederhof Seed Orchard for the 1993-1994 Fiscal Year was \$295,935.

Forest Tree Seedlings Sales Distribution by Species by County As of: 07/20/94

COUNTY	IMPROVED COASTAL LOBLOLLY PINE	IMPROVED PIEDMONT LOBLOLLY PINE	IMPROVED SLASH PINE	LONGLEAF PINE	SWEETGUM	SAWTOOTH OAK	YELLOW POPLAR	BALD- CYPRESS	BLACK WALNUT	SYCAMORE	IMPROVED WHITE PINE	DEODAR	IMPROVED VIRGINIA PINE	EASTERN REDCEDAR	SAPPHIRE	GREEN- SPIRE	LEYLAND CYPRESS	MISC. SPECIES	TOTAL
ABBEVILLE	482,000	1,011,500	0	0	0	200	0	0	0	0	1,000	0	0	0	0	0	36	0	1,494,736
AIKEN	864,500	618,090	500	1,298,635	0	370	200	200	500	6	6,200	0	18,600	3,000	270	126	1,926	18,200	2,831,323
ALLENDALE	3,477,800	0	0	240,500	0	50	0	0	1,000	0	0	0	4,000	0	0	0	180	0	3,723,530
ANDERSON	104,500	223,500	0	0	0	890	500	500	1,500	0	5,500	0	3,360	2,500	738	450	2,448	850	347,736
BAMBERG	943,942	0	1,000	42,500	0	670	0	500	0	0	0	0	0	0	0	0	0	0	988,612
BARNWELL	1,414,345	11,500	0	1,036,000	0	950	200	700	5,000	0	1,700	0	2,700	500	90	90	216	1,300	2,475,291
BEAUFORT	463,500	30,000	0	26,590	0	0	500	2,000	0	0	0	0	4,000	0	144	0	468	200	527,402
BERKELEY	2,425,805	0	1,000	816,975	0	290	200	1,200	0	0	700	0	11,700	0	90	90	360	50	3,258,460
CALHOUN	301,126	61,000	0	314,635	0	180	500	1,000	500	0	1,000	0	2,540	2,000	36	72	630	0	685,219
CHARLESTON	1,133,218	0	80,000	84,000	500	50	900	3,400	0	500	400	0	7,280	2,000	828	792	1,134	4,500	1,319,502
CHEROKEE	0	679,985	500	0	0	660	0	0	0	0	2,500	0	0	1,000	18	18	72	500	685,253
CHESTER	16,000	833,832	0	500	0	470	0	0	0	0	1,500	0	2,940	0	324	126	1,170	100	856,962
CHESTERFIELD	413,500	720,045	1,000	980,495	0	1,080	200	1,200	500	500	2,200	0	5,860	3,000	126	72	378	2,350	2,132,506
CLARENDON	2,347,805	2,000	0	128,520	0	1,190	2,000	3,000	1,000	0	1,500	0	2,000	1,000	18	0	72	150	2,490,255
COLLETON	2,889,168	0	0	330,635	0	350	0	0	0	0	0	0	3,040	14,000	72	18	216	200	3,237,699
DARLINGTON	452,360	80,500	0	47,940	0	130	0	1,500	1,000	0	3,000	0	1,980	3,000	18	36	702	250	592,416
DILLON	294,550	0	0	50	0	40	0	2,000	0	500	0	0	620	3,500	18	18	504	800	302,600
DORCHESTER	2,632,519	0	1,000	18,000	0	50	0	0	0	0	1,000	0	15,780	1,500	342	72	2,016	150	2,672,429
EDGEFIELD	89,500	3,386,500	0	2,000	0	280	0	0	0	0	1,000	0	3,000	1,000	180	18	450	250	3,484,178
FAIRFIELD	208,000	1,633,268	0	0	0	730	0	0	0	0	500	0	1,000	500	90	90	396	100	1,844,674
FLORENCE	896,260	1,270	1,000	3,180	0	630	12,500	500	0	0	0	0	1,000	500	0	0	180	425	917,445
GEORGETOWN	4,574,000	0	0	64,000	0	0	0	1,000	0	0	0	0	1,000	500	360	0	0	0	4,640,860
GREENVILLE	500	562,270	0	0	0	980	700	200	500	0	8,700	0	2,740	500	270	234	1,782	550	579,926
GREENWOOD	0	2,386,500	0	0	0	840	0	1,000	500	0	2,500	0	5,000	0	234	198	702	100	2,397,574
HAMPTON	2,968,152	0	49,000	155,000	0	350	0	500	0	0	500	0	1,500	500	0	0	54	350	3,175,906
HORRY	2,105,045	4,000	0	21,265	1,000	870	1,400	2,400	500	0	1,400	0	2,060	2,000	270	198	1,080	350	2,143,838
JASPER	1,241,420	0	0	9,500	0	80	0	0	0	0	1,000	0	5,000	1,000	18	18	0	500	1,258,536
KERSHAW	462,590	1,249,903	0	629,090	0	640	0	0	1,500	0	2,500	0	1,200	1,500	108	0	954	18,550	2,368,535
LANCASTER	106,000	466,816	0	47,080	0	0	0	500	0	0	1,000	0	3,040	0	18	0	270	50	624,774
LAURENS	74,000	1,301,000	0	0	0	100	0	0	0	0	4,500	0	500	1,000	0	0	36	200	1,381,336
LEE	630,180	1,500	0	4,500	0	0	0	0	0	0	0	0	2,580	0	18	36	594	0	639,408
LEXINGTON	219,702	69,200	1,100	147,990	500	900	0	2,500	1,050	0	7,300	0	19,940	13,000	774	540	2,196	1,300	487,992
MARION	1,885,000	0	0	2,000	0	460	200	2,700	2,500	0	2,700	0	1,480	0	0	0	0	0	1,897,040
MARLBORO	376,500	43,000	0	10,000	0	1,200	2,000	15,000	0	0	0	0	540	1,500	36	18	18	150	449,962
MCCORMICK	52,000	1,272,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108	0	1,324,108
NEWMERRY	138,000	2,451,238	0	0	0	4,670	3,300	3,300	500	0	3,300	0	4,320	0	180	72	936	200	2,610,016
OCONEE	0	291,000	0	0	0	50	0	0	1,500	0	8,600	0	2,040	600	594	0	1,026	300	305,710
ORANGEBURG	2,514,234	500	0	269,992	0	1,960	2,200	3,700	500	0	7,300	0	15,240	7,000	594	144	1,152	1,000	2,825,516
PICKENS	0	266,000	0	0	0	400	200	700	2,500	0	18,200	0	4,280	2,000	504	198	1,332	350	296,664
RICHLAND	234,000	74,680	0	33,500	1,250	800	1,400	1,400	500	1,000	3,400	0	12,480	2,000	864	450	2,538	100	370,362
SALUDA	332,000	1,312,500	0	545	0	220	500	0	500	500	2,000	0	2,120	1,500	486	450	882	1,050	1,655,253
SPARTANBURG	1,000	1,436,450	0	590	500	1,050	2,000	1,000	3,000	0	15,500	0	8,680	500	360	468	3,222	1,600	1,475,920
SUMTER	889,405	115,315	500	105,610	0	2,120	0	1,500	1,000	0	3,500	0	2,360	1,500	270	162	1,242	824	1,125,308
UNION	56,000	2,092,000	0	380	0	0	0	0	1,500	1,000	3,000	0	1,500	0	0	0	180	100	2,155,660
WILLIAMSBURG	5,054,450	106,000	500	21,700	0	120	0	500	0	0	0	0	120	2,000	126	108	144	50	5,185,818
YORK	25,000	349,000	0	0	0	290	0	0	0	0	2,000	0	2,040	0	396	36	1,440	300	380,502
MULTIPLE CO	2,483,700	37,202,196	0	839,000	8,000	13,300	16,200	12,200	500	0	28,200	0	7,200	500	180	0	360	100	40,611,636
OUT-OF-STATE	11,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11,500
UNKNOWN	5,000	26,000	0	31,500	0	0	0	0	0	0	0	0	500	0	0	0	0	0	63,000
TOTAL	48,289,776	62,372,058	137,100	7,764,517	11,750	41,040	47,800	67,800	29,550	4,006	156,800	0	200,860	78,100	10,062	5,418	35,802	58,449	119,310,888

Forest Fire Protection

By law, the Forestry Commission is responsible for wildfire protection on all unincorporated state and private woodland. The total area protected is 12,706,603 acres; this figure represents both woodland and non-forest land immediately adjacent to woodland. *Acres protected is based on the 1993 Forest Survey data for non-federal woodland, plus 10% to cover adjacent non-forest land.*

Federal agencies provide protection for the 903,467 acres of South Carolina forest belonging to the federal government. The Forestry Commission maintains mutual aid agreements with these federal agencies to allow cooperative fire protection along the boundaries of their lands.

Fire Protection Cooperatives

Southeastern States Forest Fire Compact Commission

This organization of ten southern states provides for forest firefighting mutual aid among the member states. States belonging to the Compact are: Alabama, Georgia, Florida, Kentucky, North Carolina, South Carolina, Tennessee, Mississippi, West Virginia and Virginia. There were no requests for Compact assistance during FY 93-94.

SC Division of Emergency Preparedness (EPD)

This State agency directs overall emergency operations in the event of a major disaster. Under EPD's Disaster Mobilization Plan, the Forestry Commission has primary responsibility for forest firefighting and secondary responsibility in numerous other disaster situations. Forestry Commission personnel annually participate in disaster preparedness training conducted by EPD.

Wildland Fire Protection Partnership

This organization is a coalition of wildfire managers working together to solve fire protection problems in the rural-urban interface arena. Members include representatives from the Forestry Commission, Fire Marshal's Office, Fire Academy, Emergency Preparedness Division, Department of Health and Environmental Control, Governor's Office, the Fire Service, and the Forestry Association. The Partnership was successful in obtaining passage of statewide mutual aid legislation during the fiscal year.

Rural Cooperative Fire Protection Program

Under authority of Public Law 92-419, the Forestry Commission administers a federally-funded grant program to assist rural fire departments. Grants are awarded on a 50-50 matching fund basis to qualifying departments. During the year, 137 departments applied for grants. Of these, 85 departments received assistance totalling \$50,700.

Federal Excess Property Program

Excess Federal property is made available to the Forestry Commission through an agreement with the US Forest Service. This property is then loaned to qualifying rural fire departments to bolster their fire protection capability. Forty-seven pieces of equipment were loaned to fire departments this year. At present, 291 pieces of federal excess equipment are on loan to 211 South Carolina fire departments.

National Weather Service

Fire weather and smoke management forecasts are supplied daily to the Forestry Commission by the National Weather Service. Special forecasts are provided on request when required by specific fire situations. The information is disseminated to other agencies and public users through the Forestry Commission's communications network.

Fire Weather and Smoke Management

Weather Stations

The Forestry Commission maintains 7 manually operated fire weather stations and 2 Automated Weather Stations (AWS). Data from the stations is used in daily calculation of the Fire Danger Rating; special data from these stations is also provided to the National Weather Service. The Forestry Commission's AWS are part of a computerized statewide network including stations owned by several federal agencies. The manual stations will be used to supplement the AWS. Average statewide precipitation, measured by NOAA and SC Climatology Office, is shown on the following page.

Inches Precipitation-FY 94

<u>Month</u>	<u>Precip.</u>	<u>Normal Precip.</u>	<u>Departure from Norm</u>
July 93	2.75	5.59	-2.84
Aug	3.08	5.24	-2.16
Sept	4.28	4.51	-0.23
Oct	3.95	2.90	+1.05
Nov	2.88	2.63	+0.25
Dec	2.87	3.51	-0.64
Jan 94	4.63	3.97	+0.66
Feb	3.14	3.92	-0.78
Mar	5.08	5.14	-0.06
Apr	1.39	3.51	-2.12
May	1.98	4.16	-2.18
June	6.73	5.25	+1.48
TOTAL	42.76	50.33	-7.57

Precipitation Last 5 Years

<u>Fiscal Year</u>	<u>Precip. Inches</u>	<u>Departure from Norm</u>
1989-90	48.25	-2.16
1990-91	55.34	+4.93
1991-92	49.39	-1.02
1992-93	54.93	+4.60
1993-94	42.76	-7.57
5-Yr. Av.	50.13	-1.22

Readiness Plan

The Forestry Commission's ability to mobilize is governed by the daily readiness plan. The readiness plan consists of five levels of alert, determined by the fuel conditions, expected fire behavior, the chance of wildfire ignitions, and the firefighting resources available.

Readiness Levels - Fiscal Year 1993-94*

<u>Level</u>	<u>No. Days</u>
Readiness 1 (No Danger)	45
Readiness 2 (Low Danger)	154
Readiness 3 (Moderate Danger)	132
Readiness 4 (High Danger)	32
Readiness 5 (Extreme Danger)	2

**Average for state*

Fire Prevention and Fire Information

Personnel of the fire management section were actively involved with the news media during the year.

News releases:	40	Feature articles:	7
Radio interviews:	24	TV interviews:	44
Newspaper interviews: . .	50	Newspaper ads:	6

In addition the fire management staff produced 4 brochures and 1 booklet, designed 5 special-purpose posters, and produced 25 pieces of graphic art. The section produced 3 issues of *Blowin' Smoke*, the Wildland Fire Protection Partnership newsletter.

Comprehensive woodland home protection plans were prepared for two large developments. Section personnel participated in fire prevention training at three camps for children and helped judge the state 4-H fire prevention writing contest.

Law Enforcement

The Forestry Commission has 72 commissioned law enforcement officers, all certified by the Criminal Justice Academy. Officers have statewide jurisdiction; their primary mission is enforcement of forestry laws and regulations, with the overall objective being wildfire prevention.

Significant program accomplishments included: implementing advanced training in investigative procedures and weapons, organizing and deploying a saturation team, developing procedures for handling news coverage of arrests, increased fire investigation and arson prosecution, and developing a profile of firefighter arsonists.

Convictions obtained by Forestry Commission officers resulted in payment of over \$45,000 in fines and restitution.

Law Enforcement Summary

COUNTY	Careless-Negligent		Intentional		Wilfull-Malicious		Precaution		Burn Ban		State Forest Regulation		Arson-Related		BurnSite Inspct.	Extended Investig.	Total	
	P	C	P	C	P	C	P	C	P	C	P	C	P	C			V	P
Abbeville							1	1							38	30	34	2
Aiken	2	2					2	2							6	28	144	4
Allendale															10		13	
Anderson							3	3								12	29	3
Bamberg															8	25	40	0
Barnwell							1	1	2	2					15	13	31	3
Beaufort	4	4													25	43	106	4
Berkeley	16	16	13				18	18	2	2					71	96	505	49
Calhoun																		0
Cherokee	1	1			9	9			1	1					7	24	77	11
Chester	2	2	1	1					2	2					6	30	30	5
Chestfld	4	4					3	3	5	5					8	17	83	12
Clarendon	5	5			1	1			1	1					1	7	188	7
Colleton	34	34			11	11	14	14	1	1			15	15	35	196	331	75
Darlington	1	1													32		71	1
Dillon	4	4					3	3							29	11	42	7
Dorchester	4	3					15	15	13	13					16	90	275	32
Edgefield	1	1							4	4					35	30	30	5
Fairfield		2	2												24	38	32	2
Florence							9	9	1	1					60	16	177	10
Georgetown	5	5					1	1	2	2					20	20	150	8
Greenville	2	2	2	2			4	4								12	28	8
Greenwood									1	1					48	36	50	1
Hampton	1	1					3	3	1	1					40	67	58	5
Harry	4	4	2	2			7	7							51	42	200	13
Jasper	10	10	2	2			7	7	1	1					14	87	210	20
Kershaw							1	1									82	1
Lancaster															3		8	0
Laurens					18	18									10	50	47	18
Lee															2		77	0
Lexington	31	31	6	6			12	12							64	160	140	49
Lwr Charleston									2	2							0	2
Manchester											4	4					0	4
Marion	1	1					1	1							10	2	28	2
Marlboro	2	2			2	2	6	6	2	2			4	4	27	23	63	16
McCormick															7	20	17	0
Newberry					16	16									43	53	47	16
Oconee	6	6					1	1							4	12	6	7
Orangeburg	9	9					3	3	3	3					8	70	158	15
Pickens	13	13													18	20	21	13
Richland																	80	0
Saluda							2	2							70	31	27	2
Sand Hills											44	44					0	44
Spartanburg							2	2							13	5	17	2
Sumter	1	1					8	8	2	2					12	11	131	11
Union	1	1													3	1	1	1
Upr Charleston	5	5					17	17										22
Williamsburg	15	15					17	17	11	11					36	60	499	43
York	2	2					1	1							9	3	5	3
TOTAL	186	187	28	13	57	57	162	162	57	57	48	48	19	19	938	1492	14388	558

P = Prosecutions, C = Convictions, V = Violations

Air Operations, Dispatch, and Communications

Until they were closed on October 2, 1993, fire towers were the basis of the agency's fire detection, dispatch, and communication. With the tower closing, the responsibility of detection was shifted to an enhanced aerial detection system; 14 strategically located dispatch centers began handling daytime communications and dispatch. Night dispatch and communication is handled by a central dispatch center in Columbia.

Aerial Detection

The use of aircraft in fire detection increased significantly with the switch from towers to aerial detection. The Forestry Commission continued to use its 7 pilots and Federal Excess Planes for both detection and incident management. Private aerial contractors, trained in wildfire detection by the Commission, supplement the agency's resources when needed. Forestry Commission pilots and private contractors logged over 10,420 hours of aerial detection time during the year.

Air Tankers

Beginning in 1980, the Forestry Commission has contracted aerial tankers for each spring fire season. Two Super PBY scooper-type tankers were on line for approximately three months during the spring of 1994.

Period	Availability	Flight Hours	#Fires	#Drops	Total Cost
FY 94	150 unit-days	36.93	28	72	\$445,551
5-yr.Av.	153 unit-days	49.77	36	151	\$521,170

Prescribed Fire

The Forestry Commission offers Prescribed Fire Manager training to interested burning practitioners throughout the state. During the year, the course was presented in Columbia, Walterboro, Newberry, and Kingstree; 127 participants successfully completed the training.

At the request of the Forestry Commission, prescribed fire legislation was introduced and enacted during the fiscal year. Called the Prescribed Fire Act, the new law recognizes the importance of prescribed fire as a resource management tool. It authorizes development of a certification program for persons involved in prescribed burning and provides limited liability protection for those certified under the program.

The Forestry Commission is responsible for development and administration of the certification program, to include training, record keeping, and monitoring for compliance.

Burning done for forest, wildlife, and agriculture management during the Fiscal Year is as follows:

District	Forest Understory		Forest Site Prep		Wildlife		Agriculture	
	Number	Acres	Number	Acres	Number	Acres	Number	Acres
Camden	303	31,676	127	5,467	52	4,248	1703	43,002
Florence	756	38,187	356	10,572	249	20,931	5128	103,991
Newberry	102	9,508	149	8,327	32	4,051	98	1,709
Orangeburg	533	39,136	795	10,101	73	1,823	3089	78,081
Spartanburg	10	1,363	56	3,695	0	0	0	0
Walterboro	1405	116,167	198	10,327	488	54,195	2002	39,304
Totals	3109	236,037	1,681	48,489	894	85,248	12,020	266,087

Burning Notification

State law requires notification for certain types of outdoor burning, and many citizens make courtesy notifications even when not required by law. A total of 194,376 notifications were received during the Fiscal Year. County totals are shown below.

Abbeville	2,210	Greenwood	3,081
Aiken	9,847	Hampton	2,203
Allendale	1,000	Horry	10,300
Anderson	7,181	Jasper	3,084
Bamberg	1,402	Kershaw	6,136
Barnwell	2,712	Lancaster	1,969
Beaufort	1,516	Laurens	1,987
Berkeley	11,895	Lee	677
Calhoun	1,633	Lexington	18,424
Charleston	6,938	McCormick	562
Cherokee	1,583	Marion	2,046
Chester	1,800	Marlboro	1,613
Chesterfield	4,923	Newberry	1,163
Clarendon	3,146	Oconee	5,000
Colleton	10,417	Orangeburg	4,409
Darlington	2,453	Pickens	2,716
Dillon	1,510	Richland	5,253
Dorchester	6,313	Saluda	626
Edgefield	1,282	Spartanburg	5,082
Fairfield	1,651	Sumter	6,053
Florence	6,763	Union	281
Georgetown	5,377	Williamsburg	2,526
Greenville	9,272	York	6,361

Five-Year Wildfire Averages **All Fires By Cause - 1993-94**

Cause	Number	Acres Burned	Av. Acres Per Fire	Percent of Total	
				1993-94	5-year
Lightning	243	3,301.5	13.6	3.76	1.93
Campfire	34	110.8	3.3	.53	.50
Smoking	208	720.8	3.5	3.22	4.18
Debris Burning	2,012	9,638.8	4.8	31.11	32.12
Incendiary	2,914	22,662.9	7.8	45.05	43.74
Equipment Use	311	1,139.8	3.7	4.81	5.23
Railroad	58	366.3	6.3	.90	1.35
Children	285	594.9	2.1	4.41	4.33
Miscellaneous	403	1,538.2	3.8	6.23	6.61
Totals	6,468	40,074.0	6.2	100.00	100.00

Five-year Summary All Fires

Fiscal Year	Acres Protected	Forest Land		Non-Forest Land		All Lands			
		Number Fires	Acres Burned	Number Fires	Acres Burned	Number Fires	Acres Burned	Average Per Fire	%Area Burned
89-90	12,558,258	3,786	16,430.6	995	4,046.0	4,861	20,476.6	4.2	0.16
90-91	12,558,258	3,660	27,337.1	669	3,198.6	4,329	30,535.7	7.1	0.24
91-92	12,558,258	5,619	34,970.4	1,599	6,864.6	7,331	41,835.0	5.7	0.33
92-93	12,558,258	3,179	21,447.0	673	2,931.0	3,852	24,379.0	6.3	0.19
93-94	12,706,603	5,671	35,373.2	797	4,700.8	6,468	40,074.0	6.2	0.32
5-Year Average		4,383	27,111.7	947	4,348.2	5,368	31,460.1	5.9	0.25

Total All Land Fires By County and Month, Fiscal Year 94

	NO.	JULY ACRES	NO.	AUGUST ACRES	NO.	SEPTEMBER ACRES	NO.	OCTOBER ACRES	NO.	NOVEMBER ACRES	NO.	DECEMBER ACRES	NO.	JANUARY ACRES	NO.	FEBRUARY ACRES	NO.	MARCH ACRES	NO.	APRIL ACRES	NO.	MAY ACRES	NO.	JUNE ACRES	NO.	TOTAL ACRES		
ABBEVILLE	28	262.9	3	.9	5	2.7	5	3.7	1	.3			12	25.2	8	9.3	14	227.5	4	5.6	3	5.2	1	.2	84	543.5		
AIKEN	58	373.4	24	120.0	9	16.8	11	35.5	16	45.5	4	7.0	14	18.6	15	33.7	26	110.5	22	63.4	20	60.0	15	42.2	234	926.6		
ALLENDALE	3	31.1	2	1.2	1	.1	1	12.0	2	12.1			1	8.0	4	27.1	6	5.7	2	1.0	3	.7	1	.1	26	99.1		
ANDERSON	10	26.2	3	22.5	6	22.7			3	7.5	3	3.0			12	27.5	19	127.5	7	20.0	3	4.9	1	1.0	67	262.8		
BAMBERG	4	21.5					3	1.6	3	4.5	1	.1	13	51.7	6	22.6	14	52.8			11	23.8	2	60.2	57	238.8		
BARNWELL	3	.8	5	1.2	2	.4			3	1.6	4	11.0	5	4.6	1	10.0	7	4.4	4	5.4	7	16.4	1	.1	42	55.9		
BEAUFORT	13	22.4	8	208.1	3	6.1			2	3.2	6	22.0	16	54.3	19	106.0	25	82.5	15	39.4	9	22.0	3	4.2	119	570.2		
BERKELEY	47	335.0	22	126.6	12	49.1	7	12.3	30	328.0	28	196.2	47	292.1	73	1170.8	104	814.7	53	477.6	39	108.7	8	18.6	470	3929.7		
CALHOUN	5	4.3	5	16.7	3	1.8	2	5.0	4	5.4			3	2.4	5	33.4	6	13.5	4	3.3	8	18.9	1	5.0	46	109.7		
CHEROKEE	13	51.3	19	17.5	20	42.8	16	18.4	2	4.0	3	6.0			6	19.2	26	158.8	6	34.0	11	9.3	2	.6	124	361.9		
CHESTER	28	53.5	7	25.3	4	8.7	4	69.0	3	2.0			3	4.2	4	40.0	16	28.3	4	32.0	3	7.7	2	25.1	78	295.8		
CHESTERFIELD	29	231.9	8	12.2	5	16.2	2	1.2	3	.4	6	19.5	4	7.1	20	54.9	21	81.2	17	69.5	15	54.3	5	12.3	135	560.7		
CLARENDON	24	600.7	10	87.7	13	27.0	6	6.5	10	70.5	22	142.5	23	68.7	33	280.0	43	305.1	11	136.2	37	237.2	9	21.1	241	1983.2		
COLLETON	24	160.5	26	104.5	17	32.1	12	59.2	20	76.5	16	44.7	59	275.4	61	481.0	76	663.9	31	191.4	37	171.3	11	53.9	390	2314.4		
DARLINGTON	19	77.4	12	35.2	8	35.7	2	4.0	6	37.5	6	30.5	5	28.5	9	50.7	24	74.4	19	109.0	11	19.0	8	27.1	129	529.0		
DITCHIN	14	23.0	5	4.5	2	.5	2	2.2	12	22.4	3	4.1	2	8.0	6	9.5	9	5.7	6	12.8	2	.4	3	3.1	66	96.2		
DORCHESTER	9	21.2	25	81.0	6	14.8	6	25.9	14	54.5	8	44.2	19	120.2	20	118.0	43	351.7	32	135.5	28	157.0	1	.5	211	1124.5		
EDGEFIELD	25	242.2	5	6.2	6	6.8			4	72.3			2	3.5	3	12.0	7	8.2	6	22.8	8	12.5	3	2.6	69	389.1		
FAIRFIELD	27	53.7	5	7.1	14	56.6	14	16.0	4	12.3	2	.3	1	.3	7	13.1	10	11.3	12	9.9	5	31.7	5	4.2	106	216.5		
FLORENCE	21	374.5	5	2.2	5	1.8	3	6.1	17	149.6	9	22.6	17	96.9	31	151.0	49	808.0	25	52.2	23	33.6	14	39.7	219	1738.2		
GEORGETOWN	14	249.9	6	9.3	5	8.1			7	10.6	7	5.3	17	67.1	26	181.5	27	350.6	24	387.1	19	47.0	4	56.1	156	1372.6		
GREENVILLE	16	7.7	1	1.0	4	5.4	7	5.6	2	5.0	4	10.5	1	3.0	3	5.4	11	82.3	15	19.7	5	3.3			69	148.9		
GREENWOOD	23	130.6	6	69.5	13	51.4	8	14.4	3	8.5	4	7.7	8	9.0	8	5.7	17	20.8	16	14.3	5	.9	1	.1	112	332.9		
HAMPTON	5	21.7	22	22.8	5	31.9	9	11.0	4	2.8	8	8.8	15	25.0	18	19.3	19	69.3	14	18.6	8	12.2	2	3.0	129	246.4		
HORRY	28	112.1	8	6.4	6	4.0	3	2.5	18	69.6	11	15.8	15	57.6	34	203.8	33	207.9	26	148.0	42	428.3	7	50.1	231	1306.1		
JASPER	28	276.0	15	60.2	6	40.5	8	62.2	3	9.0	5	23.1	22	45.0	24	206.5	73	1915.0	38	265.2	8	13.8	1	1.0	231	2917.5		
KERSHAW	20	101.3	1	10.0	6	16.1	3	1.4	9	60.5	7	58.4	13	37.2	12	43.6	21	47.0	12	17.8	17	40.8	8	34.8	129	468.9		
LANCASTER	24	64.4	3	42.0	3	26.5	6	21.2	3	10.0	4	7.7	2	.6	3	2.5	17	89.4	7	7.6	15	15.5	3	8.0	100	398.3		
LAURENS	30	199.5	5	22.0	10	38.5	1	.1	3	6.0	4	11.0	2	10.0	7	233.6	17	149.2	32	298.7	14	84.1	13	22.7	2	3.0	109	907.7
LEE	15	89.9	2	4.5	1	1.0			4	11.0	11	25.9	26	38.0	25	41.1	30	38.5	42	79.1	18	35.1	17	9.0	249	350.3		
LEXINGTON	25	31.6	16	18.7	18	5.3	5	2.5	16	25.5	3	43.0	8	64.0	11	68.2	25	263.6	17	78.1	9	66.7			88	749.4		
LOWER CHARLE	4	52.0	5	61.6	2	30.2			2	2.0	3	13.0		3	.4	5	11.5	15	43.5	5	3.5	8	22.1	1	1.0	59	180.3	
MARION	12	18.6	4	62.7	1	2.0	2	17.0	2	20.2	2	12.0	4	25.5	11	33.1	24	124.3	9	106.5	7	15.2	1	.2	91	689.7		
MARLBORO	21	287.8	4	44.3	4	3.6	2	.1	2	.3	2	6.2	1	.1	4	24.0	4	9.5	4	3.4	4	56.3	1	.1	46	402.3		
MCCORMICK	14	244.7	2	6.5	7	51.1	1	4.0	1	12.0	1	.2	7	3.7	3	4.5	9	12.9	13	17.6	21	31.7	3	1.2	90	154.6		
NEWBERRY	18	21.8	5	11.0	7	34.0			3	5.2	4	7.7	3	26.1	1	5	24	67.5	3	3.5	6	3.8	1	.3	50	137.1		
OCONEE	5	22.5																										
ORANGEBURG	29	80.7	12	29.7	10	15.9	5	12.0	22	45.7	12	15.9	42	231.3	47	282.5	56	246.0	23	66.6	33	163.7	12	21.6	303	1211.6		
PICKENS	8	15.9	1	.5	1	.1	1	.4	6	18.1			3	3.6	8	21.8	24	57.4	11	31.9	3	3.8	1	.2	67	153.7		
RICHLAND	14	219.2	6	10.5	7	20.4	6	44.4	8	108.0	3	6.0	3	30.0	8	95.0	13	217.0	10	39.0	18	68.0	2	7.0	98	854.5		
SALUDA	19	32.7	7	14.2	6	10.0	5	12.6	1	3.0	2	.6	4	6.0	2	8.7	2	2.1	4	2.6	2	.4	5	1.2	59	86.1		
SPARTANBURG	14	113.2	4	10.0	6	13.0	6	14.0	3	18.0	1	3.0	1	4.0	10	83.0	22	134.0	8	16.0	2	5.0	3	7.0	80	420.2		
SUMTER	22	272.3	18	41.0	10	29.1	7	33.0	11	71.0	4	9.4	8	26.0	20	187.5	33	501.0	19	67.0	18	219.7	7	39.7	177	1496.7		
UNION	22	107.5	7	83.5	1	1.0	2	2.0																				
UPPER CHARLE	3	146.0	4	4.1	2	11.0			5	15.6	4	13.0	12	84.5	15	170.2	10	141.7	9	120.1	6	20.0	2	11.0	72	737.2		
WILLIAMSBURG	47	440.6	10	60.0	13	62.0	10	11.1	29	283.0	20	84.6	60	434.9	122	1295.8	150	3010.8	61	576.8	61	696.8	6	13.5	589	6969.9		
YORK	12	260.5	2	3.5	6	41.5	2	3.8	2	7.0	1	9.0			1	1.5	6	21.0	5	14.1	2	.6	3	7.0	42	369.5		
TOTAL	896	6588.2	375	1590.1	301	896.3	200	561.1	334	1773.2	246	964.5	528	2499.8	787	5805.2	1261	12117.6	700	3638.2	646	3025.4	194	614.4	6468	40074.0		

Forest Land Fires by County and Month, Fiscal Year 94

	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		TOTAL	
	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES
ABBEVILLE	26	228.8	3	.9	4	2.6	4	3.2	1	.3	8	23.9	4	6.0	12	227.3	1	3.0	2	5.1	1	.2	46	581.3		
AIKEN	55	340.3	24	120.0	7	12.5	11	35.5	14	35.4	4	7.0	11	12.5	11	19.9	22	98.4	19	58.3	17	48.9	12	28.2	207	817.0
ALLEDALE	3	31.1	2	1.2	1	.1	1	.2	1	5.0			1	8.0	4	27.1	3	2.7	2	.9	2	.5	1	.1	21	76.9
ANDERSON	10	14.8	3	22.5	5	14.7			3	7.5	3	2.5			12	20.9	16	96.5	6	18.0	3	4.9	1	1.0	62	203.3
BAMBERG	4	21.5					3	1.6	2	1.3	1	.1	10	9.8	6	17.6	12	32.5			9	6.4	2	5.2	49	96.0
BARNWELL	2	.5	5	1.1	1	.1			2	.9	4	7.3	3	1.1	1	10.0	5	2.3	3	5.3	7	9.4	1	.1	34	38.1
BEAUFORT	5	4.3	7	198.1	2	5.1			1	.2	6	22.0	10	26.3	9	31.0	15	55.9	12	26.4	5	9.5	1	2.0	73	380.8
BERKELEY	47	327.5	21	120.1	12	39.1	7	12.3	29	327.9	28	192.2	47	292.1	73	1170.8	103	808.5	53	477.6	39	108.7	8	18.6	467	3895.4
CALHOUN	3	3.6	4	4.7	3	1.8	2	4.1	4	5.4	1	.3	2	21.0	6	12.1	4	3.3	8	18.8	1	3.0	38	78.1		
CHESTER	9	8.3	15	15.2	19	40.8	16	18.4	2	4.0	2	4.0			4	11.2	19	134.7	6	34.0	8	8.9	2	.6	102	280.1
CHESTER	16	44.7	6	23.3	4	8.7	4	63.0	3	2.0			2	4.0	3	16.0	9	15.7	4	32.0	2	.7	1	25.0	54	235.1
CHESTERFIELD	26	228.4	8	12.2	4	16.0	2	1.2	3	.4	3	9.3	3	2.1	15	48.9	17	74.1	15	68.9	11	52.9	4	8.2	111	522.6
CLARENDON	19	580.4	8	35.6	10	16.8	6	6.5	10	69.0	18	108.0	20	46.6	26	196.2	34	236.8	10	86.1	34	206.0	8	18.5	203	1606.5
COLLETON	21	150.1	21	102.0	12	29.6	11	57.2	18	67.5	7	28.2	34	119.0	44	360.1	63	509.8	29	180.4	33	170.0	9	47.9	302	1821.8
DARLINGTON	18	54.6	11	30.2	8	29.0	2	4.0	6	30.5	6	26.5	5	25.5	9	37.7	21	61.3	19	104.0	10	15.8	8	14.1	123	433.2
DILLON	14	23.0	4	2.5	2	.5	2	2.2	11	15.6	2	1.1	2	8.0	6	9.2	9	5.7	6	12.8	2	.4	3	3.1	63	84.1
DORCHESTER	8	18.2	18	75.5	6	14.8	5	24.2	13	44.7	8	44.2	17	89.0	20	118.0	41	351.0	29	129.5	27	155.0	1	.5	193	1064.6
EDGEFIELD	19	210.1	4	6.0	5	6.6	4	72.3	4	12.2	1	.1	2	3.5	3	12.0	6	6.7	6	22.8	7	10.3	3	2.6	59	352.9
FAIRFIELD	23	50.8	5	7.1	13	53.0	14	16.0	3	12.2	1	.1			6	13.0	8	10.9	12	9.6	5	30.2	4	1.2	94	204.1
FLORENCE	18	367.5	5	2.2	4	1.7	3	6.1	16	149.5	6	15.2	14	69.2	30	121.5	49	775.4	23	48.4	23	33.6	14	29.7	205	1620.0
GEORGETOWN	13	236.9	6	9.3	5	8.1	7	10.1	6	10.1	6	3.2	14	62.5	26	175.5	27	350.6	24	387.1	19	47.0	4	56.1	151	1346.4
GREENVILLE	13	5.8	1	.3	4	1.4	6	5.2	2	5.0	4	9.5	2		2	3.4	11	81.6	14	17.3	4	3.2			61	132.7
GREENWOOD	19	127.5	4	29.0	9	37.7	8	14.4	3	8.5	2	5.5	6	8.4	8	5.7	13	13.9	15	14.0	5	.9	1	.1	93	265.6
HAMPTON	3	21.1	20	21.4	5	31.9	8	4.9	3	2.3	6	7.7	9	14.2	10	9.8	13	64.6	9	14.9	7	5.1	1	2.0	94	199.9
HORRY	28	103.7	8	6.4	6	4.0	3	2.5	17	60.6	11	15.8	15	45.2	34	184.8	33	200.9	26	148.0	42	428.3	7	50.1	230	1250.3
JASPER	26	274.7	14	60.1	6	40.5	6	54.1	3	9.0	5	23.1	19	27.4	21	165.3	68	1093.4	37	264.1	7	13.5	1	1.0	213	2026.1
KERSHAW	11	91.3			4	14.1	2	.3	9	55.5	6	25.2	6	5.0	10	19.4	11	34.5	7	15.5	10	30.0	5	33.9	81	324.7
LANCASTER	24	64.4	3	42.0	2	1.5	6	21.2	3	10.0	3	5.7	2		2	4.0	6	191.0	5	17.0	5	9.4	2	10.0	61	376.2
LAURENS	23	191.5	4	9.0	7	18.5	1	.1	2	5.0	3	3.6	2	.6	1	1.0	16	86.0	6	5.6	14	15.0	2	7.0	81	342.9
LEE	11	63.7	2	3.0	1	1.0			3	10.0	2	9.5	6	233.1	16	122.2	30	295.0	14	84.1	11	15.7	2	2.5	98	839.8
LEXINGTON	25	31.6	16	18.7	18	5.3	5	2.5	15	24.5	11	25.9	26	38.0	24	41.0	30	38.5	42	79.1	18	35.1	17	9.0	247	349.2
LOWER CHARLE	3	24.0	5	61.6	2	30.2			2	9.0	3	43.0	8	51.0	9	66.1	24	228.1	17	69.1	8	61.7			81	643.8
MARION	11	17.9	4	61.8	1	2.0	2	2.0	2	9.0			3	.4	5	5.5	12	28.7	4	2.5	8	19.1	1	1.0	53	149.9
MARLBORO	14	222.5	2	42.3	3	1.6	1	15.0	2	10.2	1	2.0	1	.1	6	21.0	17	82.1	8	89.5	5	8.9	1	.2	61	495.4
MCCORMICK	12	244.5	2	6.5	6	20.9			1	.2	2	6.2	1	.1	3	20.0	4	9.5	3	3.3	1	55.0	1	.1	36	366.3
NEWBERRY	14	20.3	4	8.0	6	33.5	2	4.0	1	12.0	1	.2	1	3.0	3	4.5	8	12.7	9	17.2	20	30.7	3	1.2	72	147.3
OCONEE	4	14.5					1	5.0	2	7.1	3	25.1	1		1	.5	20	53.7	3	3.5	4	2.7	1	.3	39	112.4
ORANGEBURG	26	74.2	12	26.3	8	13.8	5	12.0	21	24.6	12	14.9	34	152.3	42	235.2	53	186.2	19	47.4	31	95.2	11	17.6	274	899.7
PICKENS	7	14.6			1	.1	1	.4	4	16.0			2	.3	6	13.8	21	48.6	11	28.9	3	3.8	1	.2	57	126.7
RICHLAND	13	212.7	5	7.5	6	13.4	6	44.4	8	69.0	2	4.0	2	23.0	6	81.0	13	214.0	10	37.0	18	68.0	2	7.0	91	781.0
SALUDA	10	24.4	7	14.2	5	6.7	4	12.1	1	.1	1	.1	2	3.2	1	.5	2	2.1	3	2.5	2	.4			40	66.7
SPARTANBURG	9	54.2	2	3.0	6	13.0	3	3.0	2	17.0			1	4.0	3	13.0	21	108.0	5	11.0	1	4.0	2	6.0	55	236.2
SUMTER	18	267.1	17	40.8	8	27.6	6	28.0	10	59.0	4	7.4	8	19.0	15	137.6	32	493.9	17	62.5	17	212.7	7	24.7	159	1380.3
UNION	20	103.5	2	80.5	1	1.0										2	5.0			4	23.5	1	.5	30	214.0	
UPPER CHARLE	3	146.0	4	4.1	2	11.0			5	15.6	4	13.0	12	84.5	15	170.2	10	141.7	9	120.1	6	20.0	2	11.0	72	737.2
WILLIAMSBURG	46	440.3	10	60.0	13	62.0	10	11.1	29	280.4	20	84.6	57	433.3	121	1292.8	148	2998.8	61	576.8	61	670.4	6	13.5	582	6924.0
YORK	10	258.0	2	3.5	4	17.5	2	2.8	2	7.0	1	9.0			1	1.5	6	21.0	3	4.1	1	.1	1	2.0	33	326.5
TOTAL	762	6059.4	330	1399.7	261	711.9	181	500.7	305	1588.3	212	811.9	425	1949.5	679	5063.4	1121	10602.4	640	3443.4	586	2776.4	169	467.2	5671	35373.2

Total All Land Fires by County and Class, Fiscal Year 94

	CLASS A		CLASS B		CLASS C		CLASS D		CLASS E		CLASS F		CLASS G		TOTAL	
	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES
ABBEVILLE	22	2.9	50	98.6	11	292.0	1	150.0							84	543.5
AIKEN	34	4.3	180	437.3	20	485.0									234	926.6
ALLENDALE	8	1.0	14	20.1	4	78.0									26	99.1
ANDERSON	1	.2	59	134.6	7	128.0									67	262.8
BAMBERG	14	2.0	34	70.8	9	166.0									57	238.8
BARNWELL	17	2.4	24	43.5	1	10.0									42	55.9
BEAUFORT	8	1.1	99	256.1	11	164.0	1	149.0							119	570.2
BERKELEY	39	4.3	322	793.4	105	2607.0	4	525.0							470	3929.7
CALHOUN	8	1.1	36	66.6	2	42.0									46	109.7
CHEROKEE	13	2.0	101	179.9	10	180.0									124	361.9
CHESTER	23	3.2	47	99.6	8	193.0									78	295.8
CHESTERFIELD	34	4.6	87	174.1	14	382.0									135	560.7
CLARENDON	47	5.2	145	369.4	45	911.6	3	365.0	1	332.0					241	1983.2
COLLETON	82	9.4	233	592.0	74	1613.0	1	100.0							390	2314.4
DARLINGTON	14	2.1	96	233.9	19	293.0									129	529.0
DILLON	19	2.5	47	93.7											66	96.2
DORCHESTER	8	1.6	160	449.9	43	673.0									211	1124.5
EDGEFIELD	19	2.7	41	94.4	9	292.0									69	389.1
FAIRFIELD	38	4.8	63	111.7	5	100.0									106	216.5
FLORENCE	42	6.5	152	337.7	20	560.0	5	834.0							219	1738.2
GEORGETOWN	13	1.5	118	258.1	22	487.0	2	320.0	1	306.0					156	1372.6
GREENVILLE	18	2.6	50	79.3	1	67.0									69	148.9
GREENWOOD	24	3.5	80	124.4	8	205.0									112	332.9
HAMPTON	54	6.9	72	144.5	3	95.0									129	246.4
HORRY	17	2.4	190	511.7	23	523.0	1	269.0							231	1306.1
JASPER	38	5.6	143	355.9	47	1030.0	1	194.0	2	1332.0					231	2917.5
KERSHAW	30	5.1	84	156.8	15	307.0									129	468.9
LANCASTER	2	.3	54	125.0	8	181.0	1	100.0							65	406.3
LAURENS	3	.3	88	154.0	8	144.0	1	100.0							100	398.3
LEE	12	1.7	72	192.0	24	519.0	1	195.0							109	907.7
LEXINGTON	97	13.2	147	245.1	5	92.0									249	350.3
LOWER CHARLE	7	.9	56	191.5	25	557.0									88	749.4
MARION	11	1.3	45	98.0	3	81.0									59	180.3
MARLBORO	12	1.7	66	141.0	12	423.0	1	124.0							91	689.7
MCCORMICK	16	2.1	23	56.2	7	344.0									46	402.3
NEWBERRY	28	3.6	58	105.0	4	46.0									90	154.6
OCONEE	9	1.0	37	79.1	4	57.0									50	137.1
ORANGEBURG	49	6.8	227	629.4	27	575.4									303	1211.6
PICKENS	13	1.9	50	96.8	4	55.0									67	153.7
RICHLAND	3	.6	78	202.9	17	651.0									98	854.5
SALUDA	16	2.1	42	74.0	1	10.0									59	86.1
SPARTANBURG	1	.2	67	183.0	12	237.0									80	420.2
SUMTER	24	2.7	122	308.0	27	686.0	4	500.0							177	1496.7
UNION			60	79.5	4	180.0									64	259.5
UPPER CHARLE	7	.7	40	103.5	24	527.0	1	106.0							72	737.2
WILLIAMSBURG	29	3.6	411	1278.3	141	3418.0	7	1408.0	1	862.0					589	6969.9
YORK	2	.2	33	103.3	6	126.0	1	140.0							42	369.5
T O T A L	1025	136.4	4503	10733.6	899	20793.0	36	5579.0	5	2832.0					6468	40074.0

CLASS A <=.25; CLASS B .26-9.9; CLASS C 10-99; CLASS D 100-299; CLASS E 300-999; CLASS F 1000-4999; CLASS G > 5000

Forest Land Fires by County and Class, Fiscal Year 1994

	CLASS A		CLASS B		CLASS C		CLASS D		CLASS E		CLASS F		CLASS G		TOTAL	
	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES	NO.	ACRES
ABBEVILLE	11	1.7	43	90.6	11	259.0	1	150.0					66	501.3		
AIKEN	27	3.5	163	373.5	17	440.0							207	817.0		
ALLENDALE	7	.8	12	22.1	2	54.0							21	76.9		
ANDERSON	1	.2	57	105.1	4	98.0							62	203.3		
BAMBERG	12	1.8	33	49.2	4	45.0							49	96.0		
BARNWELL	15	2.2	18	25.9	1	10.0							34	38.1		
BEAUFORT	6	.8	59	136.0	7	100.0	1	144.0					73	380.8		
BERKELEY	37	4.1	321	779.3	105	2587.0	4	525.0					467	3895.4		
CALHOUN	9	1.2	28	56.9	1	20.0							38	78.1		
CHEROKEE	10	1.6	84	143.5	8	135.0							102	280.1		
CHESTER	10	1.6	38	85.5	6	148.0							54	235.1		
CHESTERFIELD	23	3.1	75	153.5	13	366.0							111	522.6		
CLARENDON	30	3.4	139	352.5	31	693.6	2	225.0	1	332.0			203	1606.5		
COLLETON	55	6.6	186	468.2	60	1247.0	1	100.0					302	1821.8		
DARLINGTON	13	2.0	95	198.2	15	233.0							123	433.2		
DILLON	20	2.7	43	81.4									63	84.1		
DORCHESTER	5	1.0	147	427.6	41	636.0							193	1064.6		
EDGEFIELD	12	1.5	39	84.4	8	267.0							59	352.9		
FAIRFIELD	31	4.1	59	110.0	4	90.0							94	204.1		
FLORENCE	38	6.0	146	331.0	16	449.0	5	834.0					205	1620.0		
GEORGETOWN	12	1.3	116	254.1	20	465.0	2	320.0	1	306.0			151	1346.4		
GREENVILLE	15	2.0	45	63.7	1	67.0							61	132.7		
GREENWOOD	18	2.6	69	108.0	6	155.0							93	265.6		
HAMPTON	39	4.9	52	100.0	3	95.0							94	199.9		
HORRY	18	2.5	191	497.8	20	481.0	1	269.0					230	1250.3		
JASPER	27	4.2	144	368.0	40	892.0	1	191.0	1	571.0			213	2026.2		
KERSHAW	16	2.6	56	133.1	9	189.0							81	324.7		
LANCASTER	1	.2	52	120.0	7	156.0	1	100.0					61	376.2		
LAURENS	3	.3	71	128.6	6	114.0	1	100.0					81	342.9		
LEE	9	1.3	67	184.5	21	459.0	1	195.0					98	839.8		
LEXINGTON	96	13.1	146	244.1	5	92.0							247	349.2		
LOWER CHARLE	6	.8	52	161.0	23	482.0							81	643.8		
MARION	13	1.5	38	78.4	2	70.0							53	149.9		
MARLBORO	5	.7	46	93.7	9	277.0	1	124.0					61	495.4		
MCCORMICK	11	1.7	18	50.6	7	314.0							36	366.3		
NEWBERRY	14	1.8	54	99.5	4	46.0							72	147.3		
OCONEE	5	.6	32	79.8	2	32.0							39	112.4		
ORANGEBURG	39	5.3	220	540.4	15	354.0							274	899.7		
PICKENS	11	1.6	42	70.1	4	55.0							57	126.7		
RICHLAND	3	.6	72	172.4	16	608.0							91	781.0		
SALUDA	12	1.6	27	55.1	1	10.0							40	66.7		
SPARTANBURG	1	.2	47	136.0	7	100.0							55	236.2		
SUMTER	17	1.9	114	290.4	25	723.0	3	365.0					159	1380.3		
UNION			26	34.0	4	180.0							30	214.0		
UPPER CHARLE	7	.7	40	103.5	24	527.0	1	106.0					72	737.2		
WILLIAMSBURG	29	3.5	406	1272.5	139	3378.0	7	1408.0	1	862.0			582	6924.0		
YORK	2	.2	25	85.3	5	101.0	1	140.0					33	326.5		
TOTAL	801	107.6	4053	9599.0	779	18299.6	34	5296.0	4	2071.0			5671	35373.2		

CLASS A <=.25; CLASS B .26-9.9; CLASS C 10-99; CLASS D 100-299; CLASS E 300-999; CLASS F 1000-4999; CLASS G > 5000

Total All Land Fires by County and Cause, Fiscal Year 94

COUNTY	LIGHTNING NO. ACRES		CAMPFIRE NO. ACRES		SMOKING NO. ACRES		BURNING NO. ACRES		INCENDIARY NO. ACRES		DEBRIS U S E NO. ACRES		RAILROAD NO. ACRES		EQUIPMENT CHILDREN NO. ACRES		MISC. NO. ACRES		T O T A L NO. ACRES	
ABBEVILLE	5	11.2			3	1.3	28	121.9	24	158.1	7	47.4	9	194.8	3	1.6	5	7.2	84	543.5
AIKEN	28	279.5			2	3.2	74	211.6	80	335.8	8	20.3			18	24.1	24	52.1	234	926.6
ALLENDALE	5	31.3			2	1.6	9	15.7	8	38.1	1	12.0			2	5.0	1	.4	26	99.1
ANDERSON					14	38.2	26	52.9	11	121.5	1	2.0					13	43.2	67	262.8
BARBER	3	20.2					28	76.2	22	128.8	3	13.3			1	.3			57	238.8
BARNWELL	4	.7			6	2.8	6	6.3	9	16.7	4	8.5			10	20.1	3	.8	42	55.9
BEAUFORT	2	52.0			37	240.6			75	272.2					4	5.1	1	.3	119	570.2
BERKELEY	2	101.0			3	8.2	147	760.7	302	3001.5	3	10.0	1	20.0	6	21.2	6	7.1	470	3929.7
CALHOUN	1	2.8			3	16.4	23	61.4	7	14.9	4	6.2			1	.2	7	7.8	46	109.7
CHEROKEE					8	21.9	30	106.1	69	179.9	3	37.5	1	1.0	4	2.5	9	13.0	124	361.9
CHESTER	8	75.7			3	65.5	19	59.8	21	56.0	16	27.0	2	2.1	3	5.5	6	4.2	78	295.8
CHESTERFIELD	16	170.6	1	.2	8	16.3	47	178.5	38	170.0	5	7.4	2	1.0	6	5.7	12	11.0	135	560.7
CLARENDON	2	20.0	1	.1	2	20.0	70	313.9	155	1537.3	8	10.8			2	81.0	1	.1	241	1983.2
COLLETON	9	152.1	1	.2			142	812.1	207	1288.9	14	41.1	1	1.0	4	2.2	12	16.8	390	2314.4
DARLINGTON	9	27.5	1	5.0	1	.4	33	107.2	48	216.8	12	70.8	1	.2	8	30.2	16	70.8	129	528.0
DILLON	5	14.1	2	.3	3	3.3	27	30.3	16	32.4	3	6.0			2	.3			66	86.2
DORCHESTER	2	27.0	1	15.0			63	317.9	132	753.9	11	9.5			2	1.2			211	1124.5
EDGEFIELD	7	120.6	4	15.0	5	13.4	19	88.6	10	16.2	4	11.6			8	9.0	12	114.7	69	389.1
FAIRFIELD	16	49.3	3	5.1	11	17.5	35	68.4	16	50.2	14	20.5	1	.2	1	.1	9	5.2	106	216.5
FLORENCE	3	193.0			3	17.1	44	93.4	149	1393.8	4	8.7	1	3.0	11	25.5	4	3.7	219	1738.2
GEORGETOWN	5	226.2			1	.5	45	467.8	91	627.8	10	47.2	2	.6			2	2.5	156	1372.6
GREENVILLE	5	2.7			4	2.1	20	24.4	12	77.6	3	5.0			5	9.1	17	24.0	69	148.9
GREENWOOD	4	78.2	3	4.0	7	15.9	54	166.0	6	11.2	1	.1	8	24.4	22	15.4	9	21.2	112	332.9
HAMPTON	5	50.7	1	.5	2	4.5	52	111.7	44	56.9	17	11.7	3	.8	6	10.1			129	246.4
HORRY	3	290.0			3	4.9	64	276.7	133	684.7	10	20.9			14	23.8	4	5.1	231	1306.1
JASPER	11	174.2			1	.5	66	1326.4	141	1356.5	7	56.5			2	2.1	3	1.3	231	2917.5
KERSHAW	13	51.1			3	13.5	43	78.1	43	220.2	4	4.4	6	6.5	5	41.0	12	54.1	129	468.9
LANCASTER					7	21.9	27	163.4	2	8.0	4	28.0	2	7.0	11	38.0	12	140.0	65	406.3
LAURENS	5	46.0	1	1.0	3	4.0	23	54.4	42	241.3	2	2.0	5	7.0	8	12.1	11	30.5	100	398.3
LEE	1	1.0			2	6.0	35	132.3	55	672.1					16	96.3	109	907.7		
LEXINGTON	12	38.3	4	11.0	2	.5	86	142.9	48	62.1	14	22.7			50	49.9	33	22.9	249	350.3
LOWER CHARLE	3	46.0			1		31	219.4	50	480.5	2	1.0			1	2.0	1	.5	88	749.4
MARION	2	60.1			1	5.0	23	66.5	20	36.1	7	9.7			3	1.6	3	1.3	59	180.3
MARLBORO	6	189.5			2	6.5	24	162.7	46	222.3	2	5.5	3	78.5	4	21.7	4	4.0	91	689.7
MCCORMICK	5	206.0	1	30.0	10	14.2	6	9.4	3	51.1	3	51.1	3	.6	2	.7	16	90.3	46	402.3
NEWBERRY	5	4.2	1	.1	4	2.8	17	52.2	25	43.8	21	30.7	3	2.1	11	17.0	3	1.7	90	154.6
OCONEE	1	.1	2	8.0			20	30.6	9	43.6	4	20.0	1	1.5			13	33.3	50	137.1
ORANGEBURG	4	10.0	1	2.0	16	34.5	94	471.1	149	536.4	18	50.7			7	17.9	14	89.0	303	1211.6
PICKENS	4	12.7	1	.3	6	3.7	34	78.3	4	13.7	2	5.2			8	23.2	8	16.6	67	153.7
RICHLAND	1	1.5	1	5.0	3	32.0	27	160.4	48	416.6	3	27.0			6	18.0	9	194.0	98	854.5
SALUDA	1	3.0			2	5.0	17	24.4	9	20.8	10	11.4			8	8.0	12	13.5	59	86.1
SPARTANBURG	1	1.0	1	2.0	17	91.2	15	38.0	7	35.0	20	157.0	1	5.0	8	16.0	10	75.0	80	420.2
SUMTER	6	252.1			3	142.0	86	361.5	44	530.9	2	6.5			4	11.5	32	192.2	177	1436.7
UNION	8	46.0			30	61.0	17	97.0	2	4.0	2	3.5			2	5.0			64	259.5
UPPER CHARLE					19	125.3	52	611.4									1	.5	72	737.2
WILLIAMSBURG	4	23.3	1	1.0	1	1.0	141	1002.9	423	5747.4	16	184.3	1	1.0			2	9.0	589	6969.9
YORK	1	140.0	2	5.0	1	.5	19	71.5	10	119.0	2	7.0	1	8.0	2	10.0	4	8.5	42	369.5
T O T A L	243	3301.5	34	110.8	208	720.8	2012	9638.8	2914	22662.9	311	1139.8	58	366.3	205	594.9	403	1538.2	6468	40074.0

Forest Land Fires by County and Cause, Fiscal Year 94

COUNTY	LIGHTNING NO. ACRES		CAMPFIRE NO. ACRES		SMOKING NO. ACRES		BURNING NO. ACRES		INCENDIARY NO. ACRES		DEBRIS USE NO. ACRES		RAILROAD NO. ACRES		EQUIPMENT CHILDREN NO. ACRES		MISC. NO. ACRES		T O T A L NO. ACRES	
ABBEVILLE	5	11.2			1	1.0	20	116.0	22	157.0	3	13.1	8	194.7	2	1.1	5	7.2	66	501.3
AIKEN	25	265.5			2	3.2	67	184.5	71	304.3	5	11.0			17	22.1	20	26.4	207	817.0
ALLENDALE	4	31.1			2	1.6	7	7.5	6	36.1	1	.2					1	.4	21	76.9
ANDERSON					13	22.8	24	45.3	10	101.5	1	.5			2	3.0	12	30.2	62	203.3
BAMBERG	3	20.2					24	33.2	18	41.0	3	1.3			1	.3			49	96.0
BARWELL	4	.7			6	2.8	6	6.3	7	12.6	2	.9			8	14.6	1	.2	34	38.1
BEAUFORT	2	50.0					19	186.5	47	138.9					4	5.1	1	.3	73	380.8
BERKELEY	2	101.0			1	8.0	146	734.2	302	2993.9	3	10.0	1	20.0	6	21.2	6	7.1	467	3895.4
CALHOUN	1	2.8			2	4.4	20	47.4	6	13.9	3	4.1			1	.2	5	5.3	38	78.1
CHEROKEE					4	3.9	24	91.2	63	168.7	1	2.0	1	1.0	3	2.3	6	11.0	102	280.1
CHESTER	5	73.1			3	59.5	16	25.7	15	53.1	7	15.2	1	2.0	3	5.5	4	1.0	54	235.1
CHESTERFIELD	16	170.6	1	.2	5	13.1	40	165.3	33	157.8	2	2.0	1	.7	4	3.1	9	9.8	111	522.6
CLARENDON	1	10.0	1	.1	2	18.0	63	245.9	129	1256.9	5	4.6			2	71.0			203	1606.5
COLLETON	8	149.1					112	674.9	158	948.2	11	31.9	1	1.0	4	2.2	8	14.5	302	1821.8
DARLINGTON	9	27.5	1	5.0	1	.4	31	89.2	47	206.7	11	28.1	1	.2	8	24.5	14	51.6	123	433.2
DILLON	5	14.1	2	.3	3	1.5	26	27.3	15	27.4	2	4.0			2	.3	8	9.2	63	84.1
DORCHESTER	2	27.0	1	15.0			54	292.7	130	721.7	5	7.2			1	1.0			193	1064.6
EDGEFIELD	7	120.6	4	15.0	3	11.8	17	87.7	9	10.2	4	9.6			6	8.7	9	89.3	59	352.9
FAIRFIELD	15	46.8	2	5.0	9	14.2	32	66.1	15	48.4	10	18.1	1	.2	1	.1	9	5.2	94	204.1
FLORENCE	3	193.0			1	5.0	41	87.4	141	1302.7	3	5.7	1	3.0	11	20.5	4	2.7	205	1620.0
GEORGETOWN	5	226.2			1	.5	45	486.7	87	616.2	9	33.7	2	.6			2	2.5	151	1346.4
GREENVILLE	5	2.7	3	4.0	4	2.1	18	20.1	11	77.4	3	5.0			4	7.1	13	14.3	61	132.7
GREENWOOD	4	78.2	1	.5	5	12.5	47	123.3	6	11.2			4	21.0	19	13.7	7	5.2	93	265.6
HAMPTON	4	50.2			2	4.5	41	95.4	29	36.4	13	10.3			5	3.1			94	199.9
HOBBS	3	290.0			3	4.9	64	256.8	133	653.9	10	20.4			13	19.2	4	5.1	230	1250.3
JASPER	11	174.2			1	.5	59	509.1	132	1283.1	6	56.0			1	2.0	3	1.3	213	2026.2
KERSHAW	8	48.7			3	13.0	25	47.4	35	193.5	1	.1	1	1.5	3	18.0	5	12.5	81	324.7
LANCASTER					7	21.9	25	161.3	2	8.0	3	25.0	2	7.0	11	38.0	11	115.0	61	376.2
LAURENS	5	34.0	1	1.0	3	4.0	13	25.0	41	239.8	1	.5	3	5.0	5	8.1	9	25.5	81	342.9
LEE	1	1.0			2	6.0	32	117.2	53	652.9							10	62.7	98	839.8
LEXINGTON	12	38.3				.5	85	142.8	48	62.1	14	22.7			50	49.9	32	21.9	247	349.2
LOWER CHARLE	2	21.0	4	11.0	2		27	202.8	48	416.5	2	1.0			1	2.0	1	.5	81	643.8
MARION	2	60.1					22	55.8	18	22.9	7	9.7			3	1.3	3	1.3	53	149.9
MARLBORO	5	180.5			2	6.5	10	100.1	35	131.8	1	1.0	3	63.5	2	11.0	3	1.0	61	495.4
MCCORMICK	5	206.0	1	30.0	8	14.0	5	5.3			2	21.0	2	.3	2	.7	11	89.0	36	366.3
NEWBERRY	5	4.2		.1	2	2.5	17	52.2	24	42.8	8	26.3	3	2.1	10	16.0	2	1.1	72	147.3
OCONEE	1	.1			2	7.0	16	24.9	7	42.7	3	12.0	1	1.5			9	24.2	39	112.4
ORANBURG	4	10.0	1	2.0	13	20.7	89	314.4	132	407.5	14	40.2			7	17.9	14	87.0	274	899.7
PICKENS	4	12.7	1	.3	4	1.9	29	54.3	4	13.7	1	5.0			7	22.7	7	16.1	57	126.7
RICHLAND	1	1.5			3	32.0	24	152.4	45	358.1	3	27.0			6	18.0	9	192.0	91	781.0
SALUDA	1	3.0			2	5.0	13	18.1	7	20.1	9	5.3			2	4.1	6	11.1	40	66.7
SPARTANBURG	1	1.0			14	55.2	8	17.0	4	8.0	10	82.0	1	5.0	7	12.0	9	54.0	55	236.2
SUNTER	5	234.1			3	95.5	79	324.9	38	518.9	1	5.0			4	11.5	29	190.4	159	1380.3
UNION	8	46.0			12	34.0	4	84.0	2	4.0					2	5.0	2	41.0	30	214.0
UPPER CHARLE					19	125.3			52	611.4							1	.5	72	737.2
WILLIAMSBURG	3	23.0	1	1.0	1	1.0	139	986.3	420	5718.9	15	183.8	1	1.0			2	9.0	582	6924.0
YORK	1	140.0	2	5.0			14	43.0	9	116.0	2	6.0	1	8.0	1	2.0	3	6.5	33	326.5
T O T A L	223	3201.0	31	104.5	155	509.9	1758	7740.2	2666	20958.8	220	768.5	40	339.3	249	488.9	329	1262.1	5671	35373.2

Forest and Non-Forest Land Fires by County, Fiscal Year 94

COUNTY	TOTAL AREA PROTECTED	FOREST LAND NUMBER OF FIRES	ACRES BURNED	NON-FOREST LAND NUMBER OF FIRES	ACRES BURNED	NUMBER OF FIRES	TOTAL ALL LAND ACRES BURNED	% AREA BURNED	AVG. AC. PER FIRE
ABBEVILLE	202,645	66	501.3	18	42.2	84	543.5	.27	6.5
AIKEN	455,540	207	817.0	27	109.6	234	926.6	.20	4.0
ALLENDALE	178,794	21	76.9	5	22.2	26	99.1	.06	3.8
ANDERSON	214,724	62	203.3	5	59.5	67	262.8	.12	3.9
BAMBERG	182,062	49	96.0	8	142.8	57	238.8	.13	4.2
BARNWELL	147,093	34	38.1	8	17.8	42	55.9	.04	1.3
BEAUFORT	136,739	73	380.8	46	189.4	119	570.2	.42	4.8
BERKELEY	390,299	467	3,895.4	3	34.3	470	3,929.7	1.01	8.4
CALHOUN	168,997	38	78.1	8	31.6	46	109.7	.06	2.4
CHEROKEE	165,386	102	280.1	22	81.8	124	361.9	.22	2.9
CHESTER	307,154	54	235.1	24	60.7	78	295.8	.10	3.8
CHESTERFIELD	350,594	111	522.6	24	38.1	135	560.7	.16	4.2
CLARENDON	241,314	203	1,606.5	38	376.7	241	1,983.2	.82	8.2
COLLETON	502,776	302	1,821.8	88	492.6	390	2,314.4	.46	5.9
DARLINGTON	206,641	123	433.2	6	95.8	129	529.0	.26	4.1
DILLON	158,914	63	84.1	3	12.1	66	96.2	.06	1.5
DORCHESTER	283,205	193	1,064.6	18	59.9	211	1,124.5	.40	5.3
EDGEFIELD	238,766	59	352.9	10	36.2	69	389.1	.16	5.6
FAIRFIELD	409,985	94	204.1	12	12.4	106	216.5	.05	2.0
FLORENCE	322,779	205	1,620.0	14	118.2	219	1,738.2	.54	7.9
GEORGETOWN	417,150	151	1,346.4	5	26.2	156	1,372.6	.33	8.8
GREENVILLE	271,893	61	132.7	8	16.2	69	148.9	.05	2.2
GREENWOOD	212,203	93	265.6	19	67.3	112	332.9	.16	3.0
HAMPTON	279,511	94	199.9	35	46.5	129	246.4	.09	1.9
HORRY	492,064	230	1,250.3	1	55.8	231	1,306.1	.27	5.7
JASPER	329,574	213	2,026.2	18	891.3	231	2,917.5	.89	12.6
KERSHAW	413,527	81	324.7	48	144.2	129	468.9	.11	3.6
LANCASTER	289,284	61	376.2	4	30.1	65	406.3	.14	6.3
LAURENS	325,714	81	342.9	19	55.4	100	398.3	.12	4.0
LEE	149,375	98	839.8	11	67.9	109	907.7	.61	8.3
LEXINGTON	280,985	247	349.2	2	1.1	249	350.3	.12	1.4
LOWER CHARLE	161,591	81	643.8	7	105.6	88	749.4	.46	8.5
MARION	239,275	53	149.9	6	30.4	59	180.3	.08	3.1
MARLBORO	203,172	61	495.4	30	194.3	91	689.7	.34	7.6
MCCORMICK	140,099	36	366.3	10	36.0	46	402.3	.29	8.7
NEWBERRY	254,485	72	147.3	18	7.3	90	154.6	.06	1.7
OCONEE	226,058	39	112.4	11	24.7	50	137.1	.06	2.7
ORANGEBURG	438,154	274	899.7	29	311.9	303	1,211.6	.28	4.0
PICKENS	233,056	57	126.7	10	27.0	67	153.7	.07	2.3
RICHLAND	280,398	91	781.0	7	73.5	98	854.5	.30	8.7
SALUDA	203,906	40	66.7	19	19.4	59	86.1	.04	1.5
SPARTANBURG	289,043	59	245.2	25	184.0	84	429.2	.15	5.1
SUMTER	258,685	159	1,380.3	18	116.4	177	1,496.7	.58	8.5
UNION	229,078	30	214.0	34	45.5	64	259.5	.11	4.1
UPPER CHARLE	83,244	72	737.2	7	737.2	72	737.2	.89	10.2
WILLIAMSBURG	450,241	582	6,924.0	7	45.9	589	6,969.9	1.55	11.8
YORK	290,432	33	326.5	9	43.0	42	369.5	.13	8.8
TOTAL	12,706,603	5,675	35,382.2	797	4,700.8	6,472	40,083.0	.32	6.2

Property Loss Report

From 07/01/93 thru 06/30/94

DISTRICT & COUNTY	NBR.	HOMES EST. VALUE	OTHER NBR.	STRUCT. EST. VALUE	EQUIPMENT NBR.	EST. VALUE	VEHICLES NBR.	EST. VALUE	OTHER NBR.	EST. VALUE
*CAMDEN DISTRICT										
CHESTERFIELD	0	0	6	24,000	1	18,000	0	0	0	0
KERSHAW	1	3,000	2	500	4	8,000	0	0	110	0
LANCASTER	0	0	2	2,000	3	100,200	0	0	0	0
LEE	2	5,000	3	2,500	0	0	0	0	0	0
RICHLAND	0	0	0	0	0	0	4	22,500	0	0
SUMTER	1	0	11	257,500	1	1,000	0	0	1	500
DISTRICT TOTAL	4	8,000	24	286,500	9	127,200	4	22,500	111	500
*FLORENCE DISTRICT										
DARLINGTON	0	0	0	0	0	0	0	0	4	600
DILLON	0	0	0	0	1	2,000	0	0	0	0
FLORENCE	1	2,000	4	700	0	0	0	0	1	400
HORRY	2	3,500	3	3,000	0	0	0	0	0	0
MARION	0	0	0	0	0	0	0	0	0	0
MARLBORO	0	0	1	50	0	0	0	0	0	0
DISTRICT TOTAL	3	5,500	8	3,750	1	2,000	0	0	5	1,000
*KINGSTREE DISTRICT										
BERKELEY	1	2,000	4	5,000	0	0	0	0	1	100
CLARENDON	1	1,500	1	200	1	3,000	0	0	0	0
GEORGETOWN	0	0	0	0	0	0	0	0	0	0
WILLIAMSBURG	2	4,500	6	2,900	1	0	1	4,000	85	3,100
UPPER CHARLESTON	2	1,000	0	0	0	0	0	0	0	0
DISTRICT TOTAL	6	9,000	11	8,100	2	3,000	1	4,000	86	3,200
*NEWBERRY DISTRICT										
ABBEVILLE	0	0	3	900	1	400	0	0	111	2,739
CHESTER	0	0	0	0	0	0	0	0	0	0
EDGEFIELD	0	0	1	200	0	0	0	0	0	0
FAIRFIELD	1	3,500	1	1,500	0	0	0	0	1	500
GREENWOOD	0	0	0	0	0	0	0	0	3	100
LAURENS	1	2,000	4	13,000	4	30,000	9	192,500	1	2,500
MCCORMICK	0	0	0	0	0	0	0	0	0	0
NEWBERRY	0	0	1	25,000	1	75,000	1	1,000	0	0
SALUDA	0	0	1	15,000	0	0	1	500	20	600
DISTRICT TOTAL	2	5,500	11	55,600	6	105,400	11	194,000	136	6,439

Property Loss Report (Continued)

From 07/01/93 thru 06/30/94

DISTRICT & COUNTY	NBR.	HOMES EST. VALUE	OTHER STRUCT. NBR. EST. VALUE	EQUIPMENT NBR. EST. VALUE	VEHICLES NBR. EST. VALUE	OTHER NBR. EST. VALUE				

*ORANGEBURG DISTRICT										
AIKEN	6	17,500	4	4,500	2	500	0	0	1	600
ALLENDALE	1	500	1	100	1	3,000	0	0	0	0
BAMBERG	0	0	0	0	0	0	0	0	30	900
BARNWELL	0	0	0	0	1	60,000	2	90	1	500
CALHOUN	3	6,500	1	5,000	0	0	0	0	2	1,000
LEXINGTON	5	19,300	7	27,700	5	1,900	4	22,500	5	4,900
ORANGEBURG	1	2,000	3	6,000	1	5,000	1	1,000	3	51,200
DISTRICT TOTAL	16	45,800	16	43,300	10	70,400	7	23,590	42	59,100
*SPARTANBURG DISTRICT										
ANDERSON	0	0	1	1,000	0	0	0	0	0	0
CHEROKEE	0	0	4	7,200	0	0	3	500	0	0
GREENVILLE	0	0	0	0	0	0	0	0	0	0
OCONEE	2	30,000	1	1,500	1	700	0	0	40	1,450
PICKENS	0	0	3	5,000	0	0	0	0	0	0
SPARTANBURG	0	0	0	0	0	0	0	0	0	0
UNION	0	0	0	0	0	0	0	0	0	0
YORK	0	0	1	2,000	0	0	0	0	0	0
DISTRICT TOTAL	2	30,000	10	16,700	1	700	3	500	40	1,450
*WALTERBORO DISTRICT										
BEAUFORT	2	27,000	0	0	0	0	0	0	0	0
LOWER CHARLESTON	0	0	1	4,000	0	0	2	700	1	1,000
COLLETON	3	1,000	2	2,200	0	0	0	0	13	620
DORCHESTER	0	0	0	0	0	0	1	3,000	1	250
HAMPTON	0	0	3	1,000	1	50,000	0	0	0	0
JASPER	2	25,500	8	15,200	1	5,000	0	0	1	200
DISTRICT TOTAL	7	53,500	14	22,400	2	55,000	3	3,700	16	2,070
*MANCHESTER SF										
MANCHESTER SF	0	0	0	0	0	0	0	0	0	0
DISTRICT TOTAL	0	0	0	0	0	0	0	0	0	0
*SAND HILLS SF										
SAND HILLS SF	0	0	0	0	0	0	0	0	0	0
DISTRICT TOTAL	0	0	0	0	0	0	0	0	0	0
STATE TOTAL	40	157,300	94	436,350	31	363,700	29	248,290	436	73,759

Insect and Disease

The Insect and Disease Section in cooperation with the State Division of Plant Industry and the U.S. Forest Service maintains a program to detect, evaluate, and suppress forest pests. Through cooperative agreements, these agencies make their technical assistance and advice available to the Forestry Commission.

The current forest pest detection and reporting system involves the reporting by field foresters of forest pests that are causing abnormal losses, require control action, or which may present new problems. Aerial surveys are made periodically for specific pests to determine occurrence and the need for suppression action.

Major Insect Problems

Southern Pine Beetle

A southern pine beetle outbreak was declared for Cherokee, Union and York counties in August 1992. The beetles continued to kill pines at a rapid rate through July, 1993. Aerial surveys detected 722 beetle spot infestations. These spots contained 706,559 trees with a volume of 40,097 cords and 19,818,980 board feet of pine timber. This timber had a green stumpage value of \$4,666,641.

In July a major heat wave occurred with the Weather Service recording a record number of days with temperatures of 100 degrees or greater. This high temperature caused a temporary collapse of the insect population. Salvage of previously killed pines continued through June, 1994. Southern pine beetle activity resumed in Cherokee, Union and Spartanburg counties in June also. Detection surveys were in progress at the end of the fiscal year.

Major Disease Problems

Oak Wilt

Oak wilt disease has been identified in Chesterfield, Kershaw, Lancaster, Lee and Richland counties. It appears to be static and causing losses only to low value oaks. Since there is potential for loss of valuable trees, including urban trees, periodic surveys are made to evaluate the spread.

Dutch Elm Disease

Dutch Elm disease has been confirmed in Aiken, Anderson, Cherokee, Chester, Chesterfield, Edgefield, Fairfield, Greenville, Greenwood, Kershaw, Lancaster, Laurens, Lexington, Marlboro, Newberry, Oconee, Pickens, Richland, Saluda, Spartanburg and York counties. It is expected to gradually spread through the state because the primary agent of spread, the smaller European elm bark beetle, occurs statewide.

Mycorrhizal Inoculation

A project was continued at Creech Seed Orchard this year to inoculate containerized longleaf seedlings with the mycorrhizal fungus Pisolithus tinctorius (P.t.). Approximately 400,000 longleaf seedlings were inoculated with mycorrhizae. At Taylor Nursery an additional 50,000 bare root longleaf were inoculated as part of a cooperative pilot test with Sand Hills State Forest.

Dogwood Anthracnose

In 1988 a new anthracnose disease of dogwood was noted for the first time in South Carolina. This disease is caused by the fungus Discula destructiva. Symptoms include foliage blighting, canker formation and progressive deterioration. Infected trees usually are killed by the fungus in 2-3 years. At this time infected trees have been found in Anderson, Greenville, Laurens, Oconee, Pickens and Spartanburg counties. As part of a southwide effort, the Forestry Commission has established 19 permanent plots in the counties known to harbor infections of the fungus. The dogwoods in those plots will be monitored annually to determine the rate of spread of this potentially devastating disease.

Miscellaneous Insect and Disease Checks

Commission foresters made approximately 1,336 field checks of insect and disease problems and made recommendations for prevention and control. Other inquiries were handled by telephone, mail and personal contact.

Insect and Disease Laboratory

During Fiscal Year 93-94 the Insect and Disease Laboratory processed 89 samples. These were submitted for analysis by Commission employees and private individuals. Recommendations for control of various pests identified were given where needed.

Forest Management

The Forest Management Section assists South Carolina citizens with management and development of the forest resources of the state. Programs include Woodland Management Assistance, Reforestation Assistance, Forestry Services, Forest Products Utilization and Marketing Assistance, Resource Conservation and Development, Urban Forestry, and Watersheds. These programs assist owners in growing more timber, aid industries in more efficient utilization of the timber resource, and foster conservation and multiple use of the forest resource.

There are 12.4 million acres of commercial forest land in South Carolina. According to the 1993 U.S. Forest Service Survey, 72% of the land is owned by farmers and miscellaneous private owners. Forest industry owns approximately 19% with 9% in public ownership.

The Forest Management programs are designed to assist the non-industrial private landowner with multiple use management.

Forest Management Assistance

Professional foresters from the Forestry Commission provide forest management advice and assistance to landowners. The land is examined and a written forest management plan is prepared. Recommendations for management may include such silviculture practices as forest protection, reforestation, harvesting, prescribed burning, wildlife habitat improvement, and recreation. This year 3,795 management plans were prepared for 282,635 acres.

Where practical, the landowner is referred to consulting or industrial foresters to assist in carrying out the management recommendations. This year 672 cases were referred to consulting foresters and 271 cases referred to industrial foresters.

Commission foresters provide timber marking services to landowners on a limited basis. This year 40 tracts were marked, with 1,784,964 board feet of sawtimber and 5,043 cords of pulpwood designated for harvesting.

Forest Renewal Program (FRP)

In 1982 the program was funded for the first time by a \$100,000 state appropriation. This permitted an assessment of \$400,000 from forest industry, and created a \$500,000 Forest Renewal Fund.

The program was funded at the same level for 1993-94.

Forestry Incentive Program (FIP) - Federal

Since 1974, \$19,923,174 have been allocated to South Carolina landowners under FIP.

Agricultural Conservation Program (ACP) - Federal

Agricultural Conservation Program funds are also available to landowners for reforestation.

Conservation Reserve Program (CRP)

The Program began with crop year 1986 and was renewed with the passage of the 1990 Farm Bill. Twelve signups have been held with 222,967 acres approved for trees. This year 1,018 acres were planted.

Hurricane Hugo Reforestation Project

The Hugo Incentive Program (HIP) was established and funded with \$6.0 million federal dollars (\$3.0 million initial funding plus \$3.0 million more in Spring 1992). HIP is unique in that federal monies are being administered and allocated by a state agency. Further, the SCFC is using the Dire Emergency Supplemental Appropriations Act funding to operate the cost share program. Therefore, all of the \$6.0 million is available to assist non-industrial private forest landowners. The entire \$6.0 million is now spent or designated for applicants.

Statewide Accomplishments All Cost Share Programs Reforestation and TSI

Program	No. of Landowners	Acres Planted	Natural Regeneration	TSI Acres	Cost Share Payments
FRP	119	5,538	0	445	529,811
FIP	452	16,442	0	1,651	1,317,568
ACP	586	11,255	0	2,811	782,177
CRP	52	1,284	0	202	40,024
HIP	283	10,009	138	1,558	1,492,207
SIP	77	2,384	0	886	237,836
Total	1,569	46,912	138	7,553	4,399,623

Seedling Survival

A total of 513 survival checks were made using a row count or tenth acre plot method for determining survival. A weighted analysis involving all survival checks was used to determine the statewide survival of 64%. This low survival is a direct result of the late spring and summer statewide drought experienced in 1993.

**Planting Sites Checked
By Percent Survival
(Weighted)**

District	0-49%	50-70%	71-100%	Total Plantings Inspected	Weighted % Survival
Camden	31	12	32	75	64
Florence	17	23	73	113	71
Newberry	25	27	37	89	66
Orangeburg	36	14	35	85	66
Spartanburg	27	27	21	75	49
Walterboro	11	13	52	76	71
Total	147	116	250	513	64

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**Statewide Accomplishments All Cost Share Programs
Reforestation and T&I**

Program	No. of Landowners Enrolled	Acres Reforested	Acres T&I	Cost Share Payments
FRP	119	2,338	0	\$29,811
FIP	432	16,442	0	\$317,508
ACP	286	11,252	0	\$81,177
CRP	22	1,284	0	\$0.00
HIP	283	10,009	138	\$482,207
SIP	27	2,384	0	\$27,836
Total	1,289	42,912	138	\$4,892,623

Seedling Survival

A total of 212 survival checks were made using a row count or length method for determining survival. A weighted analysis involving all survival checks was used to determine the statewide survival of 64%. This low survival is a direct result of the late spring and summer drought conditions experienced in 1993.

Forest Management Assistance 1993-94

County	Non		Cost-share		Forest	
	Exams	Acres	Exams	Acres	Exams	Acres
ABBEVILLE	27	1,652.0	69	2,608.0	10	1,758.0
AIKEN	41	3,274.0	79	5,623.0	9	3,224.0
ALLENDALE	17	1,604.0	28	1,359.0	11	7,454.0
ANDERSON	95	7,524.0	8	514.0	2	231.0
BAMBERG	7	856.0	64	3,514.0	4	1,269.0
BARNWELL	33	3,435.0	75	3,260.0	14	2,891.0
BEAUFORT	7	901.0	7	557.0	4	308.0
BERKELEY	132	8,854.0	28	1,230.0	5	1,157.0
CALHOUN	16	963.0	15	959.0	0	0.0
UPPER CHARLESTON	23	1,647.0	3	380.0	0	0.0
LOWER CHARLESTON	42	4,609.0	11	799.0	4	2,736.0
CHEROKEE	27	2,012.0	5	499.0	0	0.0
CHESTER	10	1,616.0	82	3,724.0	0	0.0
CHESTERFIELD	16	1,461.5	68	2,924.2	6	2,028.0
CLARENDON	96	4,810.0	64	3,656.0	3	1,273.0
COLLETON	30	1,709.0	60	4,114.0	15	3,820.0
DARLINGTON	21	1,622.0	19	721.0	4	778.0
DILLON	29	1,736.3	36	1,621.2	1	167.5
DORCHESTER	26	2,550.0	30	1,681.0	1	18.0
EDGEFIELD	18	1,113.0	55	2,313.0	14	2,895.0
FAIRFIELD	23	2,205.0	53	2,619.0	4	681.0
FLORENCE	15	476.0	70	2,611.0	3	1,136.0
GEORGETOWN	3	209.0	11	617.0	10	3,684.0
GREENVILLE	81	3,759.0	13	549.0	3	164.0
GREENWOOD	21	891.0	37	1,545.0	3	368.0
HAMPTON	14	1,392.0	53	1,948.0	10	2,629.0
HORRY	34	3,467.0	66	2,581.0	3	439.0
JASPER	6	1,040.0	13	692.0	4	1,103.0
KERSHAW	65	7,776.5	36	1,656.5	8	1,594.0
LANCASTER	135	8,160.0	41	2,711.0	7	692.0
LAURENS	32	2,574.0	31	1,400.0	4	553.0
LEE	63	6,326.0	12	1,102.0	0	0.0
LEXINGTON	42	2,181.0	51	2,198.0	3	500.0
MCCORMICK	5	234.0	5	367.0	15	2,773.0
MARION	11	494.7	17	888.5	2	116.0
MARLBORO	29	1,056.0	14	1,172.0	3	1,016.0
NEWBERRY	39	2,987.0	25	1,319.0	10	1,838.0
OCONEE	54	3,120.0	12	328.0	6	399.0
ORANGEBURG	30	5,314.0	139	4,749.0	2	110.0
PICKENS	98	5,141.5	15	438.0	0	0.0
RICHLAND	52	3,845.0	38	1,156.0	13	4,283.0
SALUDA	13	860.0	34	1,335.0	6	595.0
SPARTANBURG	29	1,900.0	14	622.0	6	742.0
SUMTER	74	4,835.0	15	837.0	4	684.0
UNION	29	2,026.0	18	1,677.0	6	1,223.0
WILLIAMSBURG	96	6,287.0	60	3,129.0	11	4,244.0
YORK	74	5,630.0	10	555.0	1	85.0
Report Totals	1,880	138,135.5	1,709	82,858.4	254	63,658.5

Forest Services

Through this program the Commission provides assistance to landowners with afforestation, reforestation, and maximization of production from their woodlands. The landowner is charged the cost of all services performed.

These services were available to landowners during the year:

Firebreak Plowing - performed by Forestry Commission employees using agency equipment for \$40 per hour.

Prescribed Burning - performed by Forestry Commission employees using agency equipment for \$12 per acre for the 1st 50 acres, \$10 per acre for the 2nd 50 acres and \$8/acre for all over 100 acres. Firebreak plowing costs are not included. Minimum fee \$100.00.

Prescribed Burning Standby - an agency tractor and employee on standby at burning site while landowner performed burning under an approved plan for \$15 per hour. Minimum fee \$75.00.

Equipment Rental Program - agency owned tree planters, bedding plows and drum choppers made available to private landowners at rates from \$4 to \$15 per acre.

Timber Marking - performed by Forestry Commission employees at the rate of \$5 per thousand board feet and \$1.50 per cord.

Forest Services Accomplishments

Service	# Tracts	Units of Measure	Receipts
Firebreak Plowing	817	1,679 miles	\$104,197
Prescribed Burning	99	5,288 acres	\$56,770
Prescribed Burning Standby	85	4,857 acres	\$9,441
Equipment Rental	66	1,052 acres	\$10,855
Water Bar Construction	21	1,086 bars	\$13,734
Timber Marking	40	1,784,964 BF 5,043 cords	\$17,433
Total Dollars			\$212,430

Special Water Quality and Hydrologic Unit Projects

The Forestry Commission, in cooperation with Clemson Extension, Soil Conservation Service, Agricultural Conservation and Stabilization Service, South Carolina Department of Health and Environmental Control and South Carolina Land Resources Commission, assists landowners in maintaining high levels of water quality in critical areas throughout the state. The Forestry Commission currently offers technical assistance in reforestation of cutover timber lands, waterbar construction on logging roads and location and design of logging roads and decks.

During the fiscal year, the Commission provided technical assistance on the following projects:

- 1) Lake Bowen Water Quality Project
- 2) Bush River/Camping Creek Water Quality Project

Urban Forestry

Urban forestry seeks to improve the quality of life in populated areas through the wise management of the urban tree resources. Clean air, clean water, aesthetics value, increased property value, noise buffering, energy conservation, and public safety are the products of this endeavor.

Urban and Community Forestry Grant Program

The Urban and Community Forestry Grant Program is a national program funded by Congress through the U.S. Forest Service. South Carolina received \$160,000 base funding to provide technical assistance and training. Pass-through grants in the amount of \$190,000 were provided to county and local governments, non-profit organizations, and educational institutions to develop long lasting urban forestry programs in the state or local area.

Small Business Tree Planting Program

The Forestry Commission awarded 89 tree planting grants under the Small Business Administration Tree Planting Program for 1993, totaling \$409,413. Matching funds or in-kind services were provided by local or state governments. Ninety-six contracts were awarded to small businesses to supply and install 2,092 trees on state and local government properties.

Technical Assistance

Three full-time urban foresters provide technical assistance on a regional basis in the Piedmont, Midlands, and Coastal regions of the state. Other Commission foresters provide urban forestry assistance in their respective areas on a time-available basis. A full-time Grants Assistant works in the Columbia Office along with an Urban Forestry Coordinator for statewide program management.

Urban Technical Assistance

<u>Types of Technical Assistance</u>	<u>Non-Grant Through Forestry Commission T.A.</u>	<u>Grant Program Accomplishments by Grantees (ATB + SBA)</u>
Program Development/Expansion	137	NA
Project Management	43	NA
Urban Forest Cultural Practices	1,429	NA
<u>Trees Inventoried</u>		
Miles	0	103
Total Trees Inventoried	0	9,307
<u>Trees Planted</u>		
Seedlings/Whips/Saplings (#)	24,510	626
Street/Park Size (#)	299	2,659
Trees Maintained (#)	62	90
<u>Trees Protected</u>		
Local Ordinances Passed/Revised (#)	6	3
<u>Demonstration Planting Projects (#)</u>	0	3

Tree City USA

Sponsored by the National Arbor Day Foundation, TREE CITY USA is administered in South Carolina by the Forestry Commission. The program seeks to stimulate and promote the management of urban trees by recognizing towns and cities which meet the following criteria: (1) expenditure of at least two dollars per capita on tree care and planting; (2) establishment of a city tree ordinance; (3) a legally constituted Tree Board; and (4) observance of Arbor Day by a mayor's proclamation and official ceremony. South Carolina ranks 23rd nationally with 25 towns recognized as TREE CITY USA.

Forest Stewardship

The Forest Stewardship Program is a cooperative effort among the USDA Forest Service, Forestry Commission and natural resource agencies and organizations in South Carolina to encourage the long-term stewardship of non-industrial private forest lands. Landowners are provided technical assistance by having a multiple resource management plan developed for their property which addresses their management objectives.

As of June 30, 1994, 1,137 requests covering over 362,000 acres have been received from landowners wanting to participate in this program. Natural resource professionals have completed 796 plans on 238,911 acres.

Stewardship Incentive Program

Once landowners have an approved Stewardship Management Plan, they may be eligible to participate in the Stewardship Incentive Program (SIP). This is a federal cost-share assistance program to provide financial incentives to private landowners to carry out some of the management practices outlined in their Stewardship Management Plan.

South Carolina has received a total of \$1,265,811 for cost-share assistance under the Stewardship Incentive Program (SIP) through FY 1994. As of June 30, 1994, \$1,238,262 in SIP applications have been approved and landowners have received \$470,871 in SIP cost-share assistance payments by completing approved practices.

Stewardship Incentive Program Status (5/92 to 7/94)

		Cost-share Requests	Cost-share Approved	Acres Treated	Cost-share Earned-FY94	Unfunded Needs
SIP 1	Plan Development	0 (0%)	\$0	0	\$0	\$0
SIP 2	Reforestation	218 (29%)	\$430,704	3,033	\$266,578	\$250,659
SIP 3	Forest Improvement	89 (12%)	\$89,188	1,091	\$33,850	\$28,619
SIP 4	Windbreak	3 (<1%)	\$0	0	\$0	\$3,098
SIP 5	Soil & Water	66 (9%)	\$33,279	528	\$12,708	\$32,664
SIP 6	Riparian & Wetland	12 (2%)	\$10,166	5	\$10,310	\$4,825
SIP 7	Fish Habitat	3 (<1%)	\$3,225	0	\$0	\$250
SIP 8	Wildlife Habitat	357 (47%)	\$465,505	1,968	\$143,260	\$85,835
SIP 9	Recreation	15 (2%)	\$14,987	123	\$4,165	\$8,960
TOTAL		763 (100%)	\$1,047,054	6,748	\$470,871	\$414,910

State Lands Management Program

The state lands forest management program was created to provide professional forest management assistance to South Carolina state agencies that own timber lands.

During fiscal year 1993-94, six agencies requested assistance from the state lands coordinator. The agencies and facilities were as follows:

Department of Wildlife and Marine Resource

- Webb Wildlife Center
- Yaukey Wildlife Center
- Samworth Wildlife Management Area
- Mason Wildlife Management Area
- Donnelley Wildlife Management Area
- Palachucola Wildlife Management Area

John de la Howe School

Department of Parks, Recreation, and Tourism

- Givhans Ferry State Park
- Hunting Island State Park
- Croft State Park
- Goodale State Park

Clemson University

- Camp Long

South Carolina State College

- Camp Harry Daniels

Department of Corrections

- Wateree Correction Center
- Youth Services (Willow Lane School)

Timber Revenue

Four state owned tracts were marked for timber sales. The volume marked was \$909,456 board feet and 1,741 cords of pine timber which will generate an estimated \$256,845 in revenue from sales.

Silvicultural Practices

Prescribed burning for hazard reduction and hardwood control was conducted on approximately 80 acres on 2 tracts.

Miscellaneous Requests

The state lands coordinator served as an instructor in two wildlife management workshops at Webb Wildlife Center.

The state lands coordinator is assisting the U.S. Forest Service and South Carolina State College in the development of forest management demonstration areas at Camp Harry Daniels.

Manchester State Forest

Manchester State Forest, located south of Wedgefield in Sumter County is currently comprised of approximately 17,377 acres. From 1939 through 1955, this land was leased by the State of South Carolina from the federal government and managed by the South Carolina Forestry Commission. The State received title to the property on June 29, 1955.

Receipts

Pine Straw	\$1,400.00
Timber Sales	\$133,463.28
Wildlife Management Area (WMA) Program	\$23,750.01
<u>Leases</u>	<u>\$104,890.32</u>
Total:	\$263,503.61

Timber sales efforts were concentrated in understocked areas and in selective thinnings. Conversion of older slash pine plantations to longleaf pine plantations continues while management of the slash is utilized to extend receipts.

Pine straw sales were limited due to the expansion of the Poinsett Weapons Range. Rehabilitation of existing straw areas is a focus.

Silvicultural Practices

Site preparation by drum chopping in combination with raking and piling in heavier debris was completed on 95 acres. These areas had been salvaged after Hurricane Hugo. Salvage resulted in poorly stocked sawtimber and pulpwood stands containing numerous snags and substantial debris. A total of 87 acres was planted which included 82 acres of replanting on longleaf areas where survival was poor.

The following species and number of trees were planted:

Improved Coastal Loblolly Pine	4,000
<u>Longleaf Pine</u>	<u>42,000</u>
Total Trees Planted	46,000

Sixty-four free use permits were issued to homeowners to rake pine straw for personal use.

One thousand six hundred and eighty four acres were prescribed burned to enhance wildlife habitat, provide hardwood control and to reduce hazardous fuels buildup.

Forest Protection

Four forest fires occurred during the year burning a total of 84 acres. Firebreaks were maintained on high value and high hazard sites. Periodic checks are made for insect and disease damaged trees. Removal of infected trees is an ongoing effort in the maintenance of forest health.

Recreation / Education

Recreational use of the forest continues to escalate. In addition to hunting and fishing, various user groups and individuals take advantage of opportunities for horseback, mountain bicycle, ATV and motorcycle riding. A total of seven organized events were held on the forest involving over 3,000 people.

The rifle/pistol range is a popular attraction at Manchester. The range is staffed by a group of dedicated volunteers. A total of 956 annual free use permits were issued during the fiscal year. The average number of visits per permit was three.

Eleven educational programs were conducted by members of the state forest staff. These programs involved approximately 321 individuals.

Wildlife Management

Approximately 16,000 acres of the forest are included in the Wildlife Management Area Program through a cooperative agreement between the Department of Natural Resources and the South Carolina Forestry Commission. Technical assistance with game food plot establishment, monitoring deer herd dynamics, tracking various nongame and game species, pond management, and law enforcement on the forest are supported by this interagency cooperation.

Planting and maintenance was conducted on 67 wildlife plots containing over 700 acres. State Forest personnel spent 1,211 man hours on wildlife management activities. Expenditures for materials and services totaled \$34,125.37.

The major accomplishment this year was the renovation to the dam at Elliott's Pond. A total of 1,534 man hours were required of Manchester personnel to complete the project.

Sand Hills State Forest

Sand Hills State Forest, located in Chesterfield and Darlington Counties, contains 46,000 acres. Leased from the federal government in 1939, title to the forest was transferred to the Forestry Commission in 1992.

Receipts

Timber Sales - 778,493 bd. ft. 10,417 cords	\$594,397.81
Pine Straw	79,969.56
Wildlife Management Area Program (SCWMRD)	15,833.34
Agricultural Land Rent and Leases	3,071.00
<u>Miscellaneous</u>	<u>4,561.96</u>
Total	\$697,833.67

Silvicultural Practices

Site preparation by disking and windrowing was completed on 837 acres. A total of 1,041 acres were planted.

The following species and number of trees were planted:

Improved Piedmont Loblolly	2,000
Improved Coastal Loblolly	149,000
<u>Longleaf</u>	<u>435,000</u>
Total trees planted	586,000

One hundred seventy use permits were issued to rake pine straw for personal use and for camping.

Nine thousand two hundred acres were prescribed burned to enhance wildlife habitat, cull hardwood control, and to reduce hazardous fuels buildup.

Forest Protection

Eleven forest fires occurred during the year burning a total of 81.4 acres. Firebreaks were maintained in high value and high hazard acres. Periodic checks are made for insect and disease damage.

Recreation

Recreation other than hunting and fishing includes hiking, sporting dog field trails, bird watching, wild flower identification and camping.

Wildlife Management

Sand Hills State Forest is included in the Wildlife Management Area Program in agreement with the South Carolina Wildlife and Marine Resources Department.

The Wildlife Department provides assistance in developing a wildlife management plan for the forest.

Planting or maintenance was carried out on 52 wildlife food plots containing approximately 90 acres. State Forest personnel spent 1,300 man hours on wildlife management activities including work to enhance habitat for the endangered red-cockaded woodpecker, (drum chopping around trees, artificial nest cavities, etc.). Expenditures for supplies totaled \$3,000.

Agricultural Leases

Seven leases containing 183 acres of open farm land were rented by local farmers.

Harbison State Forest

Harbison State Forest, located northwest of Columbia in Richland County, contains 2,188 acres. The tract is being developed as a public greenspace, emphasizing environmental education and demonstrating forest management practices.

Construction Projects

The staff completed construction of a restroom in the arboretum area, which included the installation of photovoltaic panels which produce electrical energy from solar rays.

Construction began on a stewardship demonstration trail which will be three miles in length.

A summer internship program employed 5 students to assist in maintenance and trail construction.

Educational Activities

School and scout programs were presented to 60 groups with an estimated attendance of approximately 1500. Seventeen Boy Scout projects (Eagle) were completed. Ten high school students participated in the Explorer Post.

A weekend Boy Scout camporee was conducted with an attendance of approximately 500.

Management Activities

One timber sale was conducted, on 139 acres with a volume of 465,099 board feet and 383 cords marked for thinning. Twenty acres were prescribed burned.

Harbison experienced no wildfires during the year.

Equipment

The Equipment Section is responsible for development and implementation of statewide programs concerning use, design and maintenance of specialized forest fire control equipment.

This section is responsible for providing technical assistance and advice to district repair shops, developing specifications for fire suppression equipment and motor vehicle fleet, and arranging training for all field mechanics.

All regular and specialized fire control equipment is modified and processed for field use at the Commission's Central Repair Shop. The Central Repair Shop personnel make numerous repairs to Forestry Commission vehicles and equipment and manufactured fire control equipment. The following are some of the major accomplishments of the Central Repair Shop:

- * Serviced and maintained vehicles assigned to Columbia Office/Shop Complex
- * Provided maintenance assistance to the District Repair Shops
- * Processed new motor vehicle equipment
- * Painted 16 vehicles for District, Nurseries, and Columbia Headquarters
- * Fabricated light bars for ranger trucks and truck tractors
- * Fabricated grounding material and installed the grounding for the new repeater system
- * Rebuilt single axle and tandem axle lowboy (Orangeburg & Colleton Counties)
- * Painted (3) JD750 FEMA
- * Painted (1) JD350 and (4) 450s for auction sale
- * Rebuilt (14) truck engines for field use
- * Painted (3) Lowboy Trailers for field use
- * Reworked (3) military trailers with generators

All Districts, State Forests, Nurseries, Seed Orchards and Central Repair Shop maintenance facilities were certified by the Division of Motor Vehicle Management.

Equipment Purchased

- * Traded four (4) 1990 JD750s for four (4) 1994 JD-550Gs. The tractors were placed in Colleton, Georgetown, Williamsburg, & Marion Counties.
- * Two (2) Tandem axle GMC transports for Abbeville & Calhoun Counties
- * Two (2) JD450/Abbeville and Calhoun Counties
- * Two (2) RM-1000 Lift Plows/Abbeville and Calhoun Counties
- * One (1) Federal Excess trailer/Colleton County
- * One (1) Federal Excess trailer/Orangeburg County
- * Acquired (4) Federal Excess vehicles and placed in field use in Horry, Marion, Wedgefield & Orangeburg Counties

Training Offered

- * Fifteen (15) Mechanics attended a one-day session on HLR transmissions taught by John Deere.
- * Three (3) mechanics, 2-day course on JD hydrostatic transmission taught by John Deere.
- * Two (2) mechanics attended a 1-day John Deere undercarriage seminar.
- * Thirteen (13) mechanics attended an eight-day session on specialized electronics taught by Greenville Technical College.
- * Five (5) mechanics attended a 2-day session on a diagnostic analyzer taught by Greenville Technical College.
- * One (1) mechanic attended a 2-day session on air condition repair sponsored by DMVM.
- * Twelve (12) mechanics attended a one-day class on general brakes/anti-lock brakes systems sponsored by DMVM.
- * Twelve (12) mechanics attended a 1-day session on performance testing.
- * Twelve (12) mechanics attended a 1-day session on introduction to anti-lock brakes and rear wheel anti-lock brake system.
- * Three (3) mechanics attended 5-day session on Ford electrical training.
- * Sixteen (16) mechanics attended a 1-day session on the use of digital multimeter.
- * Thirteen (13) mechanics attended a 2-day session on General Motors fundamentals of closed loop fuel injection.
- * Thirty-eight (38) people attended a hand tool safety seminar.

Communications

The Communications Section is responsible for planning, development, and implementation of the statewide radio and telecommunications network. The Section also maintains 641 mobile radios, 152 portable radios, 16 base stations, and 22 radio repeaters. There are 275 pagers in service.

On October 2, 1993, the Forestry Commission implemented a new statewide radio and telephone communication system. Fourteen Area Dispatch centers and twenty-two radio repeaters were put into operation to facilitate forest fire reporting and dispatching of fire suppression resources. New multi-channel mobile radios were installed as part of the new system. Training was provided to all Forestry Commission employees on new communication system procedures.

Toll-free calling was provided statewide to the public for making outdoor burning notifications. During the first nine months of operations, more than 170,000 notifications were recorded.

Environmental Management

The Environmental Management Section was formed on July 1, 1993 to develop and implement South Carolina Forestry Commission programs which are related to the environmental protection of forest and associated natural resources. Issues that are addressed include the protection of water quality, site productivity, and unique ecosystems.

BMP Manual

South Carolina's Best Management Practices for Forestry was published in March of 1994. The new BMP manual replaces the previous manuals for both wetlands and uplands. Ten thousand copies of the new manual were published and they are being distributed statewide. All registered foresters in the state have received a copy. Copies have been distributed to loggers, landowners, and foresters.

BMP Implementation Monitoring

The 3rd round of BMP monitoring of harvested sites was completed in December 1993. Two hundred harvested sites were evaluated statewide, with special emphasis being placed in the Blue Ridge Mountain region of the state. Preliminary study results show an improvement in the implementation of all BMPs. Overall compliance with BMPs in this study was 89.5% for South Carolina.

BMP Education / Training Program

BMP education and training have come to the forefront with the completion of the new BMP manual. Individual BMPs have changed and the manual goes into more detail than previous manuals. BMP meetings were held throughout the state upon request for forest landowner groups, government agencies, and professional organizations.

EPA/SCFC Contract

Effective October 1, 1993 the U.S. Environmental Protection Agency (EPA) and the South Carolina Forestry Commission signed a one-year contract for the SCFC to provide EPA with assistance in responding to complaints concerning forestry activities in jurisdictional wetlands. From October 1, 1993 to June 30, 1994, the SCFC investigated two cases for EPA. One case was located in Georgetown County, and the other case was located in Clarendon County. Both cases involved road construction in jurisdictional wetlands. In both cases, SCFC recommendations were accepted by EPA.

Environmental Education

The Environmental Education Section provides guidance and assistance to Forestry Commission personnel on environmental issues, environmental/forestry education, and provides forestry information to the public.

The Forestry Commission along with, the State Department of Education and the South Carolina Forestry Foundation sponsors Project Learning Tree, an international award-winning environmental education program. The Section Chief serves as state coordinator of Project Learning Tree (PLT) which involves natural resources professionals and educators in government, industry, and the private sector. Four PLT leadership workshops were conducted during the year to prepare facilitators to conduct training for teachers, scout leaders, and other educators in the use of Project Learning Tree materials.

The section has been involved with or made presentations to numerous environmental, forestry, and educational organizations including Teaching KATE, S. C. Tree Farm Committee, Environmental Education Association of SC, S. C. Science Council, and the Coalition for Natural Resource Education.

ADMINISTRATION DIVISION

The Division of Administration supports Forestry Commission activities through the operations of the following sections: Accounting, Construction and Real Property, Human Resource Management, Information Systems, Procurement, and Training and Safety.

EXPENDITURES:	
Transferred to General Fund	1,062,624.32
State	16,086,680.80
Federal	2,717,497.81
Earmarked	1,818,861.62
TOTAL EXPENDITURES	21,685,664.55
TOTAL REVENUES	
TOTAL EARMARKED FUNDS	2,828,688.48
Forest Products Assessments	348,927.90
Sale of Assets	27,248.42
Equipment Rentals	9,781.92
Land Rentals	112,249.32
Insurance Claims	32,032.00
Sale of Timber	1,122,207.79
Stand By Prescribed Burning	8,204.72
Construction of Water Bars	9,240.00
Timber Marking Fee	11,694.92
Fire Lane Fee	98,914.00
Burning Assistance Fee	28,020.00
Hunting & Fishing Licenses	42,013.12
Sale of Seedlings	938,927.22
Misc Transfer - Other Funds	<200.00>
Miscellaneous Revenue	4,794.20
Sale of Services	6,299.09
TOTAL FEDERAL FUNDS	2,370,467.90
Federal Grants	2,030,012.02
FEMA/Disaster	340,455.88
STATE APPROPRIATIONS	
REVENUES:	16,301,280.81

Financial Statement

Fiscal Year 1993-94

REVENUES:

STATE APPROPRIATIONS

16,501,580.81

FEDERAL FUNDS

Federal Grants	5,030,015.02
FEMA/Hugo	<u>340,452.88</u>

TOTAL FEDERAL FUNDS

5,370,467.90

EARMARKED FUNDS

Sale of Services	6,599.09
Miscellaneous Revenue	4,794.20
Misc Transfer - Other Funds	<500.00>
Sale of Seedlings	938,937.75
Hunting & Fishing Licenses	42,013.35
Burning Assistance Fee	56,020.00
Fire Lane Fee	98,914.00
Timber Marking Fee	11,694.93
Construction of Water Bars	9,540.00
Stand By Prescribed Burning	8,594.75
Sale of Timber	1,152,507.79
Insurance Claims	32,035.00
Land Rentals	112,549.32
Equipment Rentals	9,781.95
Sale of Assets	27,248.45
Forest Products Assessments	<u>348,957.90</u>

TOTAL EARMARKED FUNDS

2,858,688.48

TOTAL REVENUES

24,731,737.19

EXPENDITURES:

Transferred to General Fund	1,062,624.35
State	16,086,680.80
Federal	5,717,497.81
Earmarked	<u>1,818,861.62</u>

TOTAL EXPENDITURES

24,686,120.98

Construction and Real Property

The Construction and Real Property Section of the Administration Division is responsible for development and implementation of both short and long range permanent improvement plans for the agency with detail planning, coordination and execution of construction, renovation and major repair projects. This assistance includes development of plans and specifications, approval by other agencies, budget management, materials purchasing and coordination of labor throughout the project.

Real property transactions and records for the purchase, transfer or sale of land, as well as leases and easements are coordinated by the section.

The coordination of recycling and energy management activities throughout the Agency are responsibilities of this section. Both recycling and energy management involve the revision and updating of plans and programs to meet goals set by the State Budget and Control Board.

The accomplishments of this section depend heavily on the contributions of skills and labor by field and central office personnel. The following list reflects the major achievements and the accomplishments of the section.

Construction

Work on the handicap entrance and parking area at the Columbia Headquarters was seriously delayed by weather problems throughout the year. This project will be completed in August 1994.

Development on Harbison State Forest is an ongoing project. Personnel assigned to Harbison, with help from others, completed the restroom facility at the picnic area. This is a solar powered facility which will serve as a model for other agencies.

A new seedling packing building will be constructed at Taylor Nursery to accommodate the increased volume of seedlings produced there as a result of the nursery section reorganization. A contract on this was signed in June 1994 and the building will be complete in late October 1994.

Renovation and Repairs

Renovations were completed at the Taylor Nursery residence in September. General repairs and maintenance throughout the year were aimed at upgrading our facilities statewide. Extensive renovation work was done by all district personnel to prepare tower residences or double wide trailers for use as area offices.

Permanent Improvement and Land Acquisition

The purchase of 34.4 acres from Bowater Inc. was approved by the Budget and Control Board. This land added a much needed buffer zone at Taylor Nursery.

Preliminary work is underway for the purchase of two tracts adjacent to Manchester State Forest. This is part of the effort to replace land lost to the Air Force in the sale of Poinsett Gunnery Range.

Planning

The annual plan for permanent improvements includes construction and acquisition of three regional dispatch centers, three area offices and a new seedling cooler at Taylor Nursery.

Mail and Supply Activities

The mail and supply room activities of the central office are assigned to this section. These duties include distribution of supplies and materials to both the central and field offices.

Custodial services for the central office complex are coordinated by the section. The actual cleaning duties are accomplished through combined efforts of a contract custodial service and personnel assigned to the mail and supply room.

Solid Waste Recycling

The recycling plan developed in 1993 was revised and expanded to include all major field offices. As changes occur in the organization adjustments will be made in the plan.

Energy Conservation

The energy conservation plan will be updated as required by the State Energy Office. We are continuing to look for ways to cut our energy consumption in all areas.

Other Activities

The disposition of tower sites, towers and tower residences has been a major effort throughout the year. While progress has been made, we still have a long way to go.

Significant accomplishments have been made in removing duplicate and unnecessary materials from our files on projects and land records.

Many of the forms and reports required by other agencies have been added to our computer capability which improves efficiency and record keeping.

Human Resource Management

The Personnel Section administers personnel management programs and policies for the Forestry Commission. Major program areas are employee relations, classification and compensation, personnel and position records management, recruitment, employee benefits, affirmative action, and worker's compensation.

Workforce

The South Carolina Forestry Commission has a total of 535.55 authorized full time equivalent positions in 63 separate job classifications. Of these positions, 501.54 are funded by state appropriations. Additionally, there were 14 temporary positions funded through the Federal Emergency Management Agency (FEMA).

Personnel Turnover

An analysis of employee turnover data reveals 82 employees left their jobs during the fiscal year. There were 34 employees hired.

Employee Injuries

Most Commission personnel work in positions having a higher than normal risk of injury. The safety program, through the leadership of the Training and Safety Section, is directed toward reducing this risk. There were 55 job related injuries reported during the fiscal year, a 19% increase from last year.

Overtime Claim

The suit seeking compensation for alleged overtime filed on behalf of 33 current and former Fire Tower Attendants, filed in 1992, is still pending in Federal Court. The firm of Gignilliat, Savitz and Bettis is representing the Forestry Commission in this action. A trial date had not been set as of the end of the fiscal year.

Information Systems

The Information Systems Section oversees and directs the computer resources, operations, and needs of the Forestry Commission. The computer systems currently include a Unisys mid-range computer, approximately 130 microcomputer workstations, 10 Apple Macintosh desktop publishing systems, approximately 15 IBM-compatible Personal Computers, and the printers, scanners, modems, and other peripheral devices appropriate for these computers.

During the past year, installation was completed on computer systems linking the Taylor Nursery to the Columbia Headquarters via high-speed communications and data lines. In the future, when the necessary software has been developed, this connection will make it possible to conduct over-the-counter seedling sales, with access to the seedling ordering system.

Also during the past year, the Information Systems Section completed system installation and configuration of personal computer systems in each of the seven Area Offices which are not located in the same building as a District Office. These computers were each equipped with a printer, and software appropriate for office automation, such as word processing and spreadsheet programs. Additionally, each of these units was configured to include some of the more popular forestry-related programs. Additional computers were installed at the Niederhof Seed Orchard and the Coastal Nursery.

Four personal computers were installed for the purpose of performing differential corrections for Global Positioning System (GPS) and mapping. These units were located at the Sumter, Kingstree, and Moncks Corner Area Offices, and at the Camden District. Each of these units was fitted with a graphics printer for generating maps, and with a modem for downloading data from the U.S. Geological Survey for obtaining corrected GPS coordinates.

Purchasing

The Purchasing Section handles the procurement operations and administers the procurement policies for the Commission. Major responsibility areas include development of specifications for equipment, supplies and services, purchase by formal bidding and informal quotes, central warehouse operations, insurance operations (buildings, vehicles, aircraft, property and tort liability), Federal Excess Property acquisition and inventory records management, Minority Business Utilization, fixed assets and property management and procurement training in the S.C. Procurement Code for Commission personnel.

Procurement

All purchases and leases of property or services are contracted for in accordance with the South Carolina Consolidated Procurement Code by the Purchasing Section and the S.C. Materials Management Office.

The Purchasing Section underwent an audit examination in 1993 that resulted in the Commission certification level of purchasing being raised from \$5,000 to \$25,000.

Warehouse Operations

An adequate inventory of repair parts and supply items is maintained in stock at the Columbia Central warehouse to supply the needs of the field units. Federal Excess Property on loan to the Commission and supplies, in addition to Forestry Commission uniforms are stocked and issued at the central warehouse.

Insurance

The Commission's fleet of vehicles is insured by the Division of Insurance Services - Insurance Reserve Fund as are the buildings and property. Building and Property insurance coverage currently totals \$15,990,142.00. Three hundred seventy-one (371) vehicles are operated and insured by the Insurance Reserve Fund.

Federal Excess Property

Over \$1.7 million in equipment and supplies were acquired this year through the U.S. Forest Service's Federal Excess Personal Property Program. These items are used in the Commission's fire management program and by rural fire departments. The Purchasing Section maintains records on the \$5+ million inventory in addition to administering the acquisition and disposal of the property. At an auction in February 1994, proceeds of over \$32,000 were turned over to the U.S. Forest Service from the sale of federal excess property items which had been declared surplus to our needs. Some of these items had been in use by the Forestry Commission for over 30 years.

Minority Business Utilization

The Commission encourages utilization of minority vendors for equipment, supplies and services. An annual plan, filed with the Office of Small and Minority Business, projects the anticipated percentage of controllable dollars that will be spent with minority businesses. This year the actual dollars spent totaled \$20,320.

Fixed Assets and Property Management

The Commission's fixed assets are valued at \$25,000,669.00. The S.C. State Budget and Control Board's office of Property Management placed new replacement value on the Commission's buildings and improvements at \$20,091,585.00.

Training and Safety

Training

The Section coordinates training for all areas of responsibility and maintains training records for all employees.

A Training Advisory Council was established to assist the Section in the development of Policy and to further provide direction to the Agency's training effort.

The Section coordinated with the Fire Management staff in conducting Basic Fire Fighting School in November and with Information Services in hosting the Effective Communication Workshop. Seven (7) chapters of the Technician Program were taught to approximately forty technician candidates.

The Section conducted the annual employee training record review.

Safety

The Section also works to implement safe operating procedures and to create safety awareness. Florence and Kingstree's Committees were combined into a single committee in District 2 resulting in a total of nine Safety Committees - one in each of the Agency's separate operating units.

Quarterly meetings of the Safety Chairpersons were held to address safety needs and educate key safety persons. During the year, international orange safety caps were purchased for field personnel whose jobs put them at risk from hunters and other danger.

During the year, safety audits were conducted at all District Headquarters facilities. Refresher training was held for the sixty-two (62) employees trained as First Responders.

District Highlights:

Camden

Orange caps issued and OSHA inspection.

Florence

Ramps constructed at district and area office to bring facilities into compliance with the "Americans with Disabilities Act" (ADA). Heightened safety awareness, particularly in shop areas. Flammable liquids storage established.

Newberry

District-wide training in correct radio procedures. Ranger training for QUICK WALK AROUND for safety before warden proceeds to fire.

Orangeburg

Recommended to State Accident Review Board that District Safety Committees be involved in the accident review process. Area offices established and brought into code (e.g. handicap ramps, fire extinguishers, emergency lights, signs). Flammable storage building established. Fire marshal inspections and first aid training conducted.

Spartanburg

No smoking and exit signs throughout the district. Fire marshal inspection. Backup lights on transports. Transport chassis inspections - two repaired. Fire extinguisher training. Individual nighttime dispatch safety checklist. Pilot Jimmy Tobias produces an aviation safety newsletter for all pilots and supervisors.

Walterboro

Backup alarms for trucks - backup lights for transports. First aid training for all field personnel. Smoke filtering masks recommended and provided statewide. Regularly scheduled safety meetings. Update first aid supplies (over 2,000 pieces). New design for fire coveralls and safety logo for District 7.

Headquarters

Columbia Headquarters Committee reactivated with Committee appointments. Recommended forklift training for Headquarters personnel.

State Forests

Committee reorganized. Policy and procedure reviewed. Emphasis on individual awareness of personal protective equipment (PPE). Committee understanding of accident review procedures.

Nursery/Tree Improvement

Site inspections held at Taylor, Neiderhof and Creech. Worker Protection Standards training held at Taylor and Neiderhof. First aid training conducted at Taylor and forklift training at Neiderhof and Taylor.

The Agency's Accident Review Board is chaired by the Section Chief. The purpose of the group is to review accidents and create a more active awareness for accident prevention. The group met twice during the year and reviewed all accidents relating to equipment as per policy, and the guidelines of the State Division of Motor Vehicle Management.

Information Services

In June 1993, the information and education services of the Forestry Commission were reorganized. A Department of Information Services (IS) was formed which reports directly to the State Forester.

Forestry Information

The comprehensive manual *South Carolina's Best Management Practices for Forestry* (BMPs) was designed, edited, illustrated, and published by Information Services for the Environmental Affairs Section.

A booklet describing the results of statewide local forums on urban forestry planning was produced for the Forestry Commission-sponsored Urban Forestry Council, to be distributed to city planners and other community leaders. A color brochure synopsis of *The Plan* was produced for broader distribution.

A color brochure was produced for Manchester State Forest.

A tri-fold description of forestry-related and non-technical careers with the Forestry Commission was published for use by Human Resource Management staff and by field personnel in school career day programs.

A four-color brochure was produced for the Southern Forest-Based Economic Development Council to explain the Council's mission.

A slide/tape program about the environmental education program Project Learning Tree was written, photographed and recorded by IS staff.

Project Learning Tree was the theme for the Commission's exhibit at the State Fair. The exhibit was designed to be used in smaller units with Project Learning Tree programs.

A series of articles for the Clemson University publication "The Forest Steward" was written, with the Stewardship Coordinator, to explore landowners' questions about private property rights and the Stewardship Program.

A brochure describing SCFC services was revised, updated, and reprinted.

The annual forestry services price guide was published.

The publication "From These Roots: A Guide to Tree Planting" was revised and reprinted.

Seedling delivery material was designed and printed, including: seedling bags, planting instructions, shipping tickets, order forms, and envelopes.

Fire Management / Prevention Information

Spring fire season this year marked the fifth and final year of the FEMA funded post-Hugo fire prevention campaign. Two television announcements and one radio spot were produced to air in Charleston, Florence, and Columbia during February and March. The theme for the campaign was wildfire potential in the forest interface. A fire danger index aired during nightly news weather forecasts in Columbia and during nightly news, late night, and early morning newscasts in Charleston.

A revised *Firefighters Manual* was published.

A video training program in basic arson investigation for fire wardens and fire department personnel was produced by Information Services working with the Law Enforcement Chief.

Large wall maps for all new forest fire dispatching offices were mounted on magnetic backing and framed.

Harbison State Forest

An outdoor entrance sign, incorporating the IS-designed Harbison State Forest logo, and miscellaneous trail signage were designed and produced.

The map and trail brochure was revised and printed.

A brochure to accompany a seminar on photovoltaic installation was produced. Still photography and video support were provided at the installation workshop.

Information Services planned and/or assisted with thirty educational programs and tours.

Field Support

A week-long Effective Communications Course was held for new foresters, rangers, and other professional employees. The course offered intensive training in organization for written and oral presentations.

An inventory of available audio-visual material and exhibits was compiled and a database entered for access on all field and Columbia office Unisys computers.

Eight portable hands-on exhibits were constructed and distributed to field offices.

The quarterly newsletter *Tree Country: SC* was published for all SCFC personnel, retirees, county board members, and interested subscribers.

Lexington County and SCFC headquarters staff held the fifth annual forestry field day at Camp Kemo, a week-long summer camp for children undergoing treatment for cancer.

Information Services staff led or assisted with Project Learning Tree programs at Coker College in Hartsville and in Richland, Lexington, Sumter, and Clarendon Counties.

A Project Learning Tree exhibit and staffing were provided for the South Carolina Wildlife Expo in Charleston.

Print material, audio-visual and photographic support and exhibits were provided for the annual SCFC Personnel Conference, the Southern Group of State Foresters meeting, and conferences held by the Society of American Foresters and the South Carolina Forestry Association.

County	TV	Print	Radio	Exhibits	Personnel
Charleston	3	20	2	15	14
Clarendon	42	90	30	4	10
Colleton	12	105	31	12	11
Georgetown	9	30	30	8	30
Greenville	43	124	100	6	28
Hampton	34	30	0	7	15
Total District	148	351	173	52	118
State Foresters		4	3		
Personnel Conference	142	160	120	21	
Grand Total	291	504	396	73	118

Year	Number of Programs	Attendance	Media Exhibits	Personnel
1989 - 1990	1,283	108,201	1,330	101
1990 - 1991	1,323	101,183	1,139	115
1991 - 1992	1,387	108,300	1,130	111
1992 - 1993	1,307	101,602	824	90
1993 - 1994	1,310	104,204	1,033	109

1993-94 Programs, Exhibits, and Media Contacts

District	General		School		Fire Prev.		Arbor Day		Wkshps/Tours	
	No.	Attend	No.	Attend	No.	Attend	No.	Attend	No.	Attend
Camden	37	7,498	108	10,702	12	900	9	950	13	10,252
Florence	17	1,577	42	5,613	17	2,174	9	1,425	16	571
Newberry	31	2,165	37	3,784	46	3,895	19	1,730	22	1,221
Orangeburg	26	1,244	112	9,703	75	11,167	16	1,296	18	453
Spartanburg	43	5,499	109	10,522	88	14,300	4	677	40	2,723
Walterboro	20	1,802	52	5,840	38	4,030	7	885	3	108
Total Districts:	174	19,785	460	46,164	276	36,466	64	6,963	112	15,328
State Forests	19	546	60	1500			1	30	75	2,200
Nurseries									6	227
Columbia	16	11,643	3	2068					44	1284
Grand Totals:	209	31,974	523	49,732	276	36,466	65	6,993	237	19,039

District	TV	Print	Radio	Exhibits	Parades
Camden	3	26	5	12	14
Florence	42	90	36	4	19
Newberry	15	162	31	15	31
Orangeburg	9	50	26	8	38
Spartanburg	45	134	169	4	25
Walterboro	34	59	6	7	12
Total Districts	148	521	273	50	139
State Forests		4	2		
Nurseries					
Columbia	145	169	120	21	
Grand Total	293	694	395	71	139

Five-Year Summary of Programs, Exhibits, and Media Contacts				
Year	Number of Programs	Attendance Contacts	Media Exhibits	Parades
1989 - 1990	1,283	106,201	1,330	195
1990 - 1991	1,255	101,183	1,339	186
1991 - 1992	1,587	148,596	1,156	171
1992 - 1993	1,307	141,682	834	90
1993 - 1994	1,310	144,204	1,453	139

Economic and Rural Development

The Forestry Commission continues its program of Economic and Rural development. The purpose is to assist in developing the contributions the forest and forest-related industries make to the state.

In rural development, the Commission represents the state's natural resource interests on the South Carolina Rural Development Council. In addition, the Rural Community Assistance Program of the USDA Forest Service is administered by the State Forester in cooperation with the Forest Service Forest Supervisor of South Carolina. Under this effort, last year grants totaling \$35,000 were awarded for the following projects: Scholarships for rural leaders to attend the Governor's Rural Development Conference; a student recruiting video for the Forest Products Technology Program at Orangeburg-Calhoun Technical Education Center; and preparation of an economic development plan for Bishopville/Lee County.

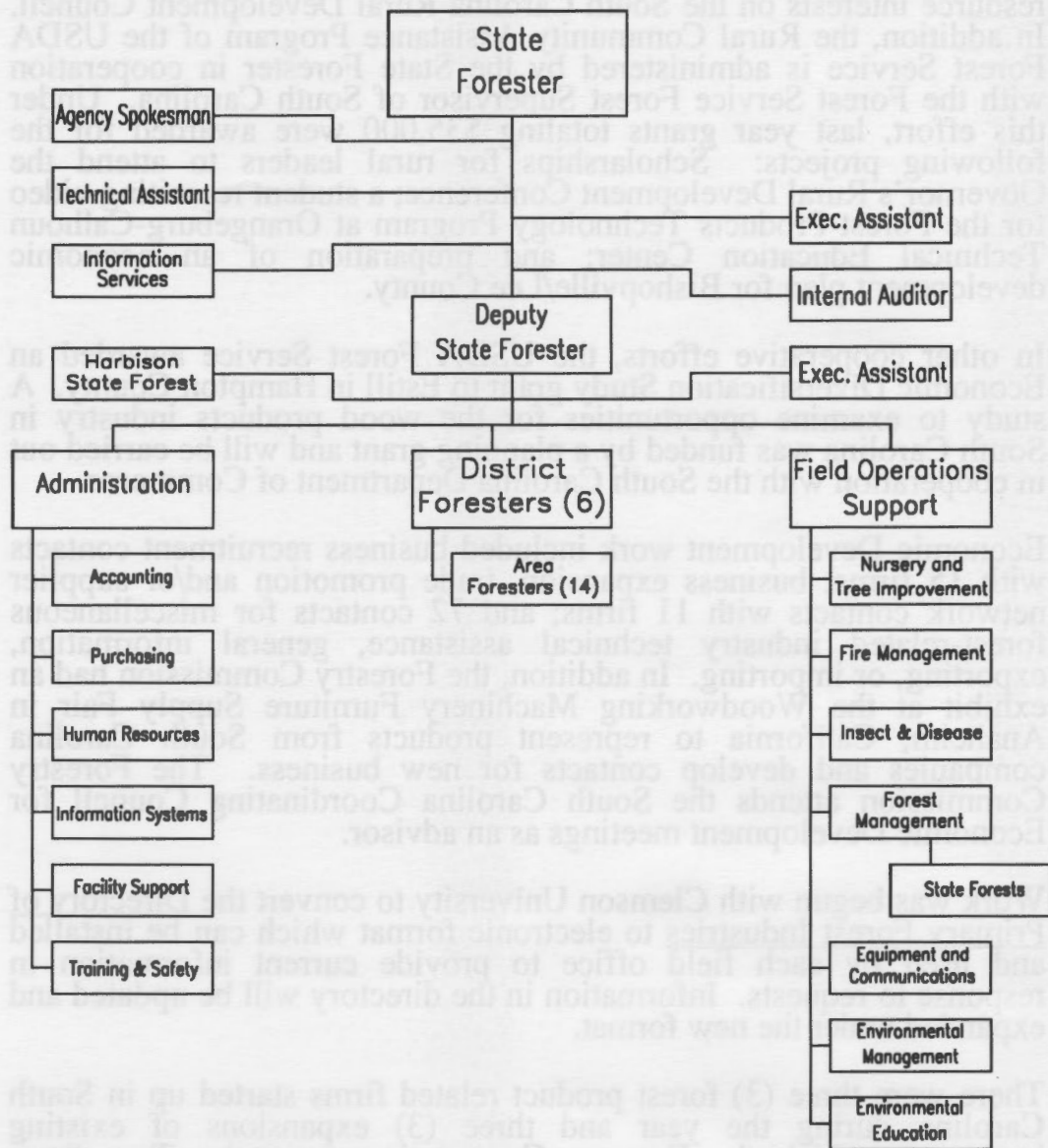
In other cooperative efforts, the USDA Forest Service awarded an Economic Diversification Study grant to Estill in Hampton County. A study to examine opportunities for the wood products industry in South Carolina was funded by a planning grant and will be carried out in cooperation with the South Carolina Department of Commerce.

Economic Development work included business recruitment contacts with 15 firms; business expansion, trade promotion and/or supplier network contacts with 11 firms; and 72 contacts for miscellaneous forest-related industry technical assistance, general information, exporting, or importing. In addition, the Forestry Commission had an exhibit at the Woodworking Machinery Furniture Supply Fair in Anaheim, California to represent products from South Carolina companies and develop contacts for new business. The Forestry Commission attends the South Carolina Coordinating Council for Economic Development meetings as an advisor.

Work was begun with Clemson University to convert the Directory of Primary Forest Industries to electronic format which can be installed and used by each field office to provide current information in response to requests. Information in the directory will be updated and expanded under the new format.

There were three (3) forest product related firms started up in South Carolina during the year and three (3) expansions of existing businesses which the Forestry Commission assisted. Two firms decided not to locate in South Carolina.

South Carolina Forestry Commission Organizational Chart Fiscal Year 1994



Total Number of Documents Printed	<u>255</u>
Cost Per Unit	\$ <u>2.35</u>
Printing Cost - S.C. State Budget & Control Board (up to 255 copies)	\$ <u>600.89</u>
Printing Cost - Individual Agency (requesting over 255 copies and/or halftones)	\$ <u>—</u>
Total Printing Cost	\$ <u>600.89</u>